

# The National Locksmith®



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CODES!  
page 104

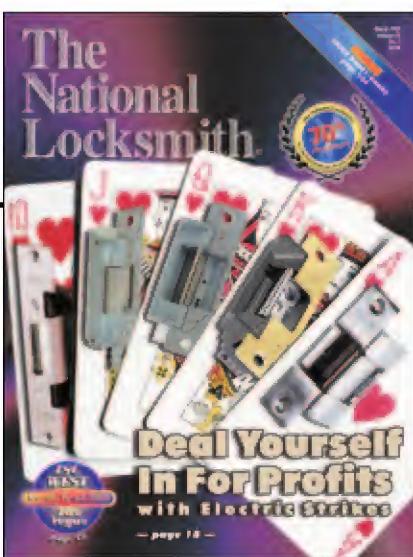


## Deal Yourself In For Profits with Electric Strikes

— page 18 —



**On The Cover...**



Offering products and solutions for any electrified strike application, Trimec, Adams Rite, Rutherford, H.E.S. and Trine have all the answers.

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March 1999 • Vol. 70, No. 3

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# COMMENTARY



<http://www.TheNationalLocksmith.com>  
User name: national User ID: G5fh84

**R**emember when magic was a secret art?

You could count on the likes of Harry Houdini to amaze the public back in the early days of this fading century of ours. In the modern era we have David Copperfield performing incredible feats of magic on national tour. And like small children, we never tire of seeing unexplainable events take place before our eyes with no idea of "How do they do that???"

But the dawn of the 21st Century brings a new form of enlightenment along with it... the death of secrets. The Fox television network recently ran a series showing precisely how common magic tricks are done. Magicians, masked for protection against retribution, revealed such secrets as how ladies are sawed in half, and how magicians make themselves disappear.

So the magic act is out of the bag, so to speak. Does this mean that wizardry will die a rapid death? Will we be now be disinterested in seeing human levitation right before our eyes? I think the magicians can rest easy. I've seen a man levitate himself six feet off the ground, hoops passed around his body to show there were no wires. And I was sitting no farther than twenty feet away. I'd still be fascinated to see it done again, trick or no trick.

**L**ocksmithing was a secret art back in the day. Just grab a Ouija board and ask Houdini. A great deal of the master's art was in his ability to manipulate not only his body and each muscle, but also his intimate knowledge of locks.

But the secrets of locksmithing are secret no more. Any fourteen year old kid born with a computer mouse in his hand can log onto the web quicker than you or I can even figure out which remote works the VCR. Once online, within five minutes, these cyber-brats can learn details about locksmithing that took their fathers years to devise.

## The (Previously) Secret Art of Locksmithing

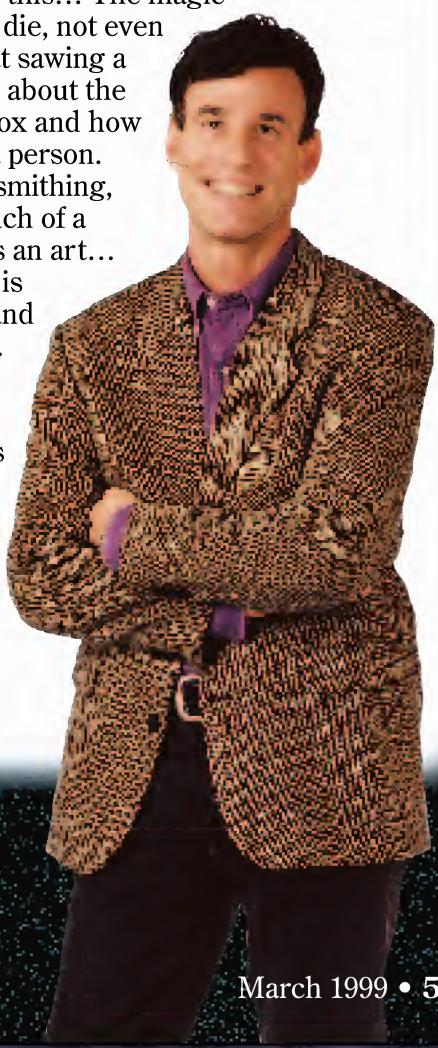
**W**hen *The National Locksmith* began in 1929, locksmiths couldn't buy pick sets because no one wanted to reveal how they were made. Each locksmith made his own tools. Now anybody who can spell lock picks can buy them, along with complete instructions.

Don't believe me? Log onto [www.hotbot.com](http://www.hotbot.com). Search for the exact phrase "lock pick." Within twenty seconds you'll have over 600 choices. Descriptions on these web sites include: "The best place on the net to buy lock picks, pick guns, tubular lock picks;" "Beginners guide on how to make lock picks;" "Click here to order locksmithing equipment;" etc.

**N**o, I don't advocate teaching kids how to pick locks when they're not even old enough to drive. But what I am saying is this... The magic of magic will never die, not even when you learn that sawing a woman in half is all about the mechanics of the box and how it conceals an extra person. And the art of locksmithing, while no longer much of a secret, still remains an art... a profession which is only part science, and a great deal of skill.

Part of the science may lie in the tools and books now available to anyone. But the art, as always, resides in the hands of the practitioner.

*Marc Goldberg*



**Join our free E-mail list!**

Receive locksmith info by E-Mail.  
Write us at: NATLLOCK@aol.com

**Marc Goldberg**

**Publisher**

# Mango's Message

**A**s you peruse this months issue, you will notice a fair portion of Internet/World Wide Web related topics. On page 26 is an article by Billy Edwards Jr., titled "Locksmithing on the WWW" covering basic terms to navigate the Internet/World Wide Web, how to best utilize this electronic median and how you can be a part of it by posting your own web page.

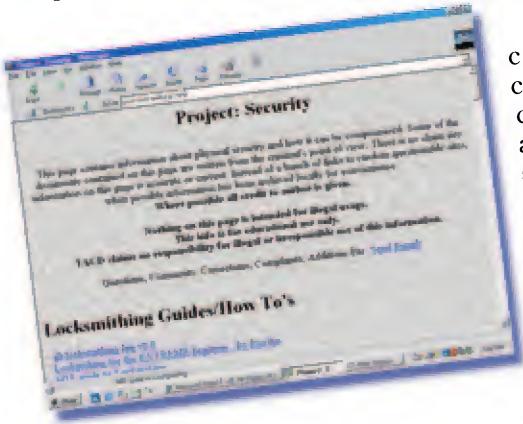
On page 124, Clark Security Products is announcing the introduction of a new web site called "SecureRite" which is designed to direct customers to the locksmith industry. It's a concept that I think you will find quite interesting. In addition, I'm sure you have already read Marc's commentary on how the secrets of locksmithing have been unveiled on the Internet. With access to the Internet and a key word search for 'lock picking,' 'impressioning' or 'safecracking' (just to name a few,) before you can say abracadabra, the secrets that our forefathers so feverishly fought to protect will be revealed in explicit detail.

As I was perusing the Internet recently, I came across a web page (<http://www.tacd.com/felons/users/shaedow/projects/security/index.htm>) that really caught my attention. When I arrived at the site this is what I found:

#### **Project: Security**

This page contains information about physical security and how it can be compromised. Some of the documents contained on this page are written from the criminal's point of view. There is no claim any information on this page is accurate or current. Instead of a bunch of links to random questionable sites, when possible information has been archived locally for convenience.

Where possible all credit to author is given. Nothing on this page is intended for illegal usage. This info is for educational use only. TACD claims no responsibility for illegal or irresponsible use of this information.



Questions,  
comments,  
corrections,  
complaints,  
additions etc.  
send e-mail!

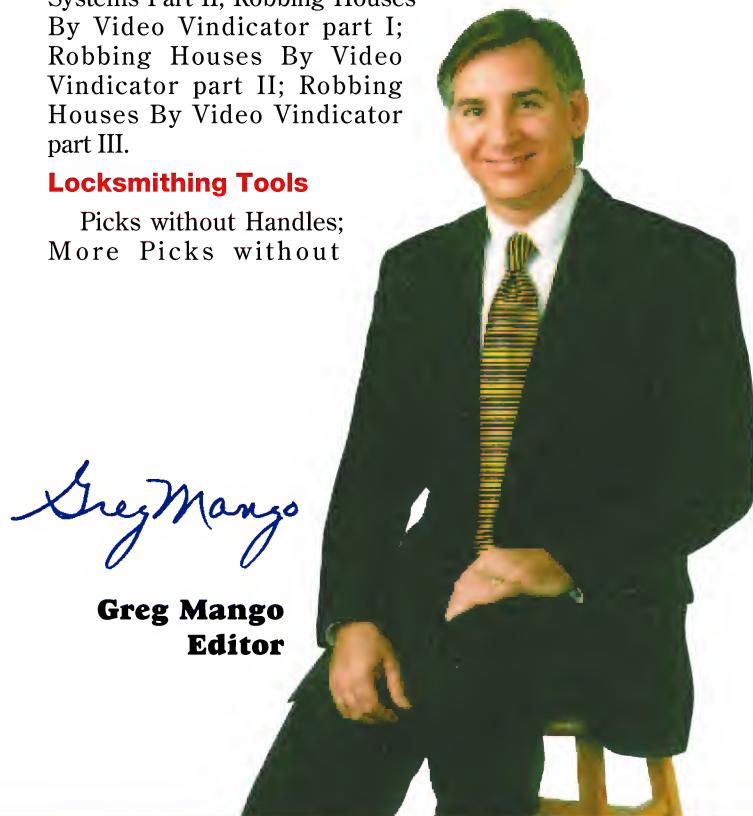
## Dark Side of the Internet

#### **Locksmithing Guides/How To's**

alt.locksmithing faq v6.8; Lockpicking for the EXTREME beginner by Exodus; MIT guide to Lockpicking; Secrets of Lockpicking; Lock-Picking Demonstration; Impressioning Manual for Amateur Locksmiths; Locks and Physical Security Devices by Sterling; Physical Security and Penetration by John Falcon (aka Renegade); Lockpicking by Nightwing; Lockpicking by Darc Deathe; The Science of Picking Locks by Eric the Red; Sanctuary Lockpicking I; Sanctuary Lockpicking II; Sanctuary Lockpicking III; The Arts of Lockpicking I by The Jolly Roger; The Arts of Lockpicking II by The Jolly Roger; The Arts of Lockpicking III by The Jolly Roger; Picking an 8-digit Number Lock; How to Make Vending Machine Keys; How to Get into Older Safes; How to Pick Chain Locks; Lock-Picking Using The Lock Clicker By The GNN; LOD's Identifying, Attacking, Defeating, and Bypassing Physical Security and Intrusion Detection Systems; LOD's Identifying, Attacking, Defeating, and Bypassing Physical Security and Intrusion Detection Systems Part II; Robbing Houses By Video Vindicator part I; Robbing Houses By Video Vindicator part II; Robbing Houses By Video Vindicator part III.

#### **Locksmithing Tools**

Picks without Handles;  
More Picks without



**Greg Mango**  
**Editor**



**Continued from page 6**

Handles; Majestic picks Close Up Shots of Pick Tips; Wrenches; Misc. Tools; Types of Picks.

### **Simplex**

Simplex Locks An Illusion of Security (from 2600); Hobbits Simplex Treatise.

### **Combination Locks**

Opening Combo Locks by Exodus; How To Pick Master Combination Locks; Picking Combination Locks by Byte Byter; Unlocking Master Combination Padlocks;

### **Master Combination Padlock**

#### **Series "9" Combinations**

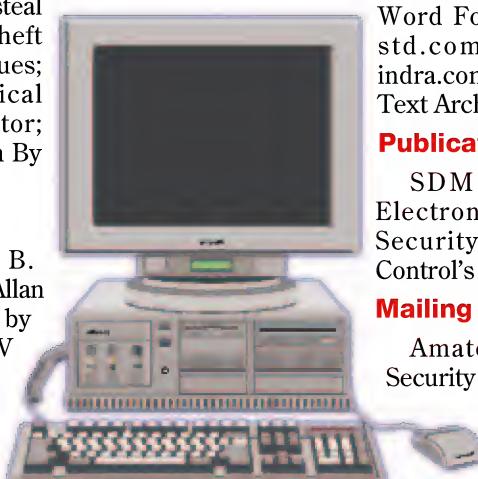
[900001, 900051, 900101, 900151]

### **Cars**

Wisdom From the Repo Man (how to steal cars) by Caliban; An All-Purpose Car Theft Guide; Hotwiring Cars; Slim Jim techniques; Breaking Into Cars - Part 2; A practical approach to car theft by Video Vindicator; What I like to do to cars when I want them By Poltergeist.

### **Security Systems**

Installing Alarms part I by Allan B. Colombo; Installing Alarms part II by Allan B. Colombo; Installing Alarms part III by Allan B. Colombo; Installing Alarms part IV by Allan B. Colombo; Installing Alarms part V by Allan B. Colombo; Techniques of Burglar Alarm Bypassing I; Techniques of Burglar Alarm Bypassing II; Techniques of Burglar Alarm Bypassing III; Alarm Company Licensee Numbers; Fun With Alarms by Stainless Steel Rat; What You Need To Know About Smart-Cards And Electronics Phonecards by unknown.



### **Magnetic Strips**

Card Reader Access System by the Ring Master; Summary of the SR&D MCR-175-1R-0803 mag stripe card reader; Card Reader Schematics and Software; Automatic Teller Machine Cards; Credit card magnetic strip info; California Adds Magnetic Strips to Driver's Licenses; Magnetic Stripe Copier; Magnetic stripe technology.

### **Store Security**

Store Security Tags.

### **Misc Stuff**

How to get into Certain Lab Rooms; Murphy's Laws of Locksmithing; How to determine the hand of door hardware.

### **Newsgroups**

alt.locksmithing; alt.security; alt.security.alarms; alt.security.neighborhood.

### **Web Pages**

Rons Safety & Security Home Page; Safety & Security Electronic Magazine Homepage; Safety & Security Magazine Back Issues; Colombo's Safety & Security Home Page; Lock-Picking Page; Lock-Picking for you; Lock-Picking Demonstration; You can pick your friends, and you can pick your locks;..The Unofficial Teach Yourself Guide to Lockpicking; Lockpicking Resources; Impressioning Manual for Amateur Locksmiths; MIT Guide To Locksmithing; Ilco Unican Inc.; Security Resource Center; Accu-Lock Inc.; Medeco High Security Locks.

### **Ftps**

MIT Guide to locksmithing in Post script format; Unofficial version of MIT Guide to Locksmithing with scanned gifs; MIT Guide to locksmithing in MS Word Format; alt.locksmithing archives at std.com; alt.locksmithing archives at indra.com; High quality scans of picks; Misc. Text Archive at ucsf.edu; Quick Key Wizard.

### **Publications**

SDM Magazine; Safety & Security Electronic Magazine Homepage; Safety & Security Magazine Back Issues; Access Control's Security Solutions Online.

### **Mailing Lists**

Amateur Locksmith Digest; Safety & Security Electronic Magazine Mailing List.

### **Conferences**

International Security Conference & Exposition.

As you can see, there are a number of locksmith-related topics which can be found. Not only are these topics covered, but many are covered with remarkable accuracy, leaving little left to the imagination. And remember, this is only one such Internet site. There are countless others.

The individuals posting this information go to great lengths - and take pride - in exposing this information. The intent of such information is obviously not for education use only, but rather to incite those with illicit intent. This is unfortunate because it casts a dark shadow on the true purpose of the Internet. Don't let the dregs of society and their irresponsible activity discourage you from exploring this marvelous research, educational, interactive, communicational, marketing tool. It really is - as JJ Walker would say - "Dy-No-Mite."

Well, I gotta go. I'm in the middle of reading *"Techniques of Burglar Alarm Bypassing II,"* so if you find my picture posted on the Post Office bulletin board, you know I took my research a little too far. I'm not too concerned, however, because I've been practicing my alibi... *"But officer, I was simply trying to verify the accuracy of the information for an upcoming editorial!"* What do you think? **TNL**

# Letters

*The National Locksmith* is interested in your view. We do reserve the right to edit for clarity and length.

## The Auto Help Line of America

In January, *The National Locksmith* received a letter from King's Locksmith in Texas, requesting information on "The Auto Help Line of America." I received numerous calls from locksmiths currently providing service for this company and every caller had something positive to say about The Auto Help line of America. Their reoccurring statements were: They pay on time; fulfill their contractual obligations; provide all the customer information needed; are prompt, courteous and legitimate.

Wish I could tell you that about all the roadside service contractors.

*Greg Mango, Editor*

## What's Taxable?

In January, Tony's Lock & Security Service in California requested information on what products and services are taxable in his state. Again, I received numerous calls from readers providing information.

You can contact the State Board of Equalization, P.O. Box 942879, Sacramento, CA, 94279-0001, and request the "Tax tips booklet for locksmiths." It covers the "sales and use taxes" in California. You can also contact the California Locksmith Association (CLA) 714-632-6800 for information. *Greg Mango, Editor*

## Buyer Beware

I want to let all locksmiths know about a company called "Lock Pro" and a software package they promote. Buyer beware. This is supposed to be a full service locksmith package with accounting, dispatching, bar coding, and inventory control. In almost a year that I have been involved with it, the software and the people rarely live up to their word. In fact, I signed a contract for specific rights and after they got my money they changed how they were going to handle business. They even got to the point of saying if we had any questions we would have to fax it to them and they would fax back the answer, which usually took several days. If we happened to ask the same question more than once there would be a \$35.00 charge and that was after I paid them for a 1-year service contract!

I demanded they take back their equipment and software and give me my money back. They picked up their software and equipment and even some of my personal equipment. I am going to have to take them to court to get my money back.

If you are thinking of buying this software and want to hear my \$12,000 horror story with them, let



me know at  
[jim@kenslockandkey.com](mailto:jim@kenslockandkey.com).

*Jim  
E-Mail*

## Stop the Disappearing Act

Dwayne Sullivan of West End Lock & Security brought up some good concerns on disappearing customers.

I have been the recipient of disappearing customers for lockouts on several occasions. Here is what I try to do each time:

1. Ask for a home address and phone number. It would be great if you can also get a vehicle tag number.

2. Ask how they are going to pay. They may not be able to give you a card number because it could be in their purse or wallet that may be locked in the vehicle.

3. Advise them that once you leave, you cannot be canceled and you will charge a trip charge if they are not there upon arrival.

4. Ask if they have contacted any other providers. (If yes, do not even

bother to help, you are immediately going to lose.) Some customers will call several locksmiths and use the first one to arrive.

5. Follow-up on the customers that stiff you; collection proceedings, civil suits, whatever it takes. In our area, a phone call for service is a verbal contract and we win those when we sue.

I hope this helps. Good Luck!

*Les Moyer  
Pennsylvania*

### **What's the Perception?**

My esteemed spouse related to me that at her work, someone had locked keys in an auto and called home for a spare set. Her spouse told the woman that they had no spare keys for the vehicle in question. She then proceeded to call Sears. This may have been because of an auto club affiliation. A tow truck driver came to open the vehicle (unknown make) and took quite a long time, apparently an hour or so. During a subsequent conversation on the affair, the woman was overheard to have discounted calling a locksmith because "They are expensive and will tear up your car."

Now it is obvious that locksmiths did not properly educate these folks, because they had no spare key, the cheapest most efficient method of re-entry to the vehicle. The real problem lies in the perception of our professional ineptitude and insatiable avarice. Who instilled this view? Was it a malicious tow-driver, or much more likely, a bad experience with a poorly trained and ill-equipped locksmith or locksmith poseur? More importantly, our reputation as an industry is either maligned or ignored. Perhaps we can direct some of the energy we use to complain into improving our knowledge, professionalism and relationships with the public, one another and the other industries that overlap our own.

*Daniel W. Hill, CML  
E-Mail*

### **Petty Larceny**

The euphemism's Mango used at the end of his commentary on Bill Reed in the December, 1998 issue, page 10, "Creating Jobs For Locksmiths" and "Borrowing" hotel towels and who knows what else, are nothing more than stealing, thievery,

like it or not. Taking something that belongs to another is stealing! You and I, as locksmiths, are to provide security for our customers' property, not steal from them.

As for Treskat, I would likely not buy anything from Treskat if they treated me like your article says. I know locks, but most of my customers do not. I try to be patient with them when they tell me "That round thing turns, but the lock will not open!" I tell them politely that I will check it out for them. Most people will agree and pay for my services.

The shoe is, at times, on the other foot. I have had, among other things, furnace trouble. I do not know "furnace talk." When I try to explain my problem as best as I can, the repair person listens and takes care of it, and I pay for his services. There is no bad mouthing, cursing, calling me stupid, etc., just polite efficient service at a fair price.

I have been treated rudely over the phone by locksmith suppliers and do little, if any, business with them. I buy almost all of my supplies from a Detroit firm and have always received good treatment and fast service. If I place an order early in the day, 90% of the time UPS delivers it the next business day.

*Thomas Seager  
Michigan*

### **Open Letter to Locksmiths**

We have some good news for you. The Meilink Safe Company, a division of Fire King International Inc., has acquired NKL Industries Ltd. and its Gary Safe International division.

This new alliance means your accounts will be brought current-and kept that way. You can expect payment shortly.

Many of you have stood by NKL through good and bad times. To show our appreciation, we will soon announce some exciting marketing programs designed to build profitability for you and for us. Stay tuned.

Meanwhile, should you have any questions or comments, please feel free to call us. The deal was completed on January 29, 1999.

We are more excited than ever about the future of Meilink and

NKL/Gary. It's a future that will mean a lot of hard work, but handsome rewards as well.

We appreciate your patience and your support.

*Warmest Regards,*

*Van G. Carlisle*

*President of Meilink Safe Company/  
NKL Industries*

### **Locksmith Saves the Day**

It's every parent's nightmare - their baby locked inside a car along with the keys. Add a buzzing bee and you can empathize with the mother's predicament.

The mother was on her way to the store. She put her baby into the car seat in the back of her 1998 Mercedes-Benz and her purse and keys on the front seat of the car.

When she tried to open the driver's door, it was locked. There was no spare key and the car was locked with the remote, which was locked in the car.

The baby started crying and the mother noticed that there was a bee buzzing about inside the car.

"I was nervous because of the bee," the mother said. "I don't know if the baby is allergic to them."

The mother tried to unlock the door with a wire hanger to no avail. A Yorktown police officer and a tow truck driver also tried and failed to open the vehicle.

The mother called the dealership where she bought her car and her 24-hour roadside assistance provider, but got no help. They told her the only way inside would be to break a window, but some Mercedes models come equipped with shatterproof windows to deter car jacking.

Police then called me to open the vehicle.

When I arrived, I used a special tool designed specifically for Mercedes cars, and opened the door in a matter of seconds.

The baby was fine, and the bee left the car as soon as the door was opened.

I didn't charge for my services. My reward came when that little child smiled back at me. That was worth a million dollars.

*Lee Imm  
Montrose, NY*

**TNL**

# Security Café

**DROP IN FOR  
 TOOLS, TECHNOLOGY  
 & EQUIPMENT**

## RB Enterprises Anti-Pilferage Door Alarm



The Monitor 4000 from RB Enterprises is an electronic employee control system that provides an effective, worry-free method of keeping the back door of a business locked. The unit, which installs in less than two hours, features a delay mode and automatic reset when the door is closed. A single system can be used on multiple internal and external doors including exit doors, storerooms, walk-in freezers and many other applications.

Options available with the Monitor include a door bell buzzer, door scope for outside viewing, remote sirens, strobe lights, remote key pads and surge protection. The unit operates on 110 power and has a backup battery system.

## Marks USA Monaco Cylindrical Lever Lockset

Marks USA has designed and is manufacturing its first decorative cylindrical lockset. The design matches its Monaco series tubular locksets, but is available in most of the keyed functions. In addition, it comes in



polished brass with a lifetime finish warranty. As in the other "Survivor" series, this lockset is built around the Marks USA "Clutch" mechanism for an extended life.

Presently available in ANSI grade two, it will satisfy those applications where a decorative but reliable, heavy-duty lever lockset is required.



## Major Manu- facturing HIT- 40AR5

A new router template used to cut the tapered opening used for Adams Rite swing bolt locks is now available from Major. The HIT-40AR5 template has marks used to locate the opening needed for both offset and center

hung door installations. It requires the use of a router equipped with a 3/8-inch outside diameter template guide and 1/4-inch bit.

## Jet Hardware Transponder Key

Jet Hardware is offering a transponder key blank, GM97-N-PHT, that allows locksmiths the ability to duplicate Buick Park Avenue, Chevrolet Ventura, Oldsmobile Silhouette, Pontiac Montana, and future GM cars without the automobile. Locksmiths do not have to go out to the cars and program GM keys. The GM99-N-PHT for Cadillac may

## AERTRAX GPS- Based Vehicle Tracking

AERTRAX is a dependable and cost effective vehicle and mobile asset location system. AERTRAX units use GPS to determine position, then transmit the data over Cellemetry Data Service, which is now available across most of North America. Asset locations are immediately displayed on street level maps, instantly available from secure Internet web sites. AERTRAX permits dispatchers to learn a vehicle's location in less than thirty seconds, whether across town or across the state.



be duplicated in the same manner.

Duplications using Jet's ETD-1 Electronic Decoder and Duplicator can exceed all automobile manufacturers' transponder restrictions.

## Chicago Lock Key Holder



Chicago Lock's large "user-friendly" Acer key holder allows for better grip and overall control of the key. A screw is included so that you can fasten the key to the holder.

## Free Framon Accessories



Framon Manufacturing is now including either a 50-key assortment or free Audi/Volkswagen vises with the

purchase of a Sidewinder machine. The 50-key assortment includes a variety of primary keys for autos such as Lexus, BMW, Mercedes two and four track, Saab, Volvo, and Infiniti. Locksmiths can choose to receive a second set of vises with the machine instead, which will provide for cutting the center-groove Audi and Volkswagen keys.

## Abloy Disklock Pro Key Deposits

Abloy Disklock Pro key



deposits are commonly used by utility companies for storing route keys and by fire departments for storing a building master in order to gain access to a building without wasting any time to break down doors.

The hardened steel cylinder can be ordered keyed different, keyed alike or masterkeyed. Abloy Disklock

Pro key deposits are available also with a microswitch and dust cover.

**Schwenk Tool Company Installation Template**

The "Timesaver" from



Schwenk Tool Co. is a unique installation jig for commercial cylindrical locksets. The template, which has a lifetime warranty and is ready to use for any backset or door thickness, has hardened steel drill guides to pinpoint drill points for Schlage, PDQ, Corbin Russwin, Arrow, Unican and Trilogy.

Available in red, blue or black anodized finishes, the template features rubber feet to

prevent door finish scratching and a bubble level to assure accuracy. No setup is required. In addition to single application units, the Timesaver is also available in 2-in-1 and 3-in-1 applications.

**STI Protectors**

A tough new steel wire guard to protect sensor units of projected beam type smoke detector systems in large areas such as gymnasiums and auditoriums is available from Safety Technology International.

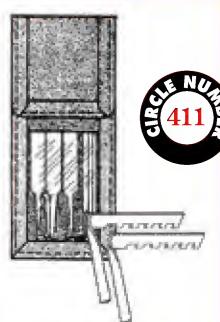
The STI Smoke Beam Guard is designed to provide protection for these sensitive and costly units from both vandalism and accidental damage. Available for both transmitter and receiver, the Smoke Beam Guard features extremely sturdy construction of 9-gauge, coated steel wire.

The use of STI Beam Guards is recommended wherever abuse is possible or where any disruption in



**Gerry Finch Lock Pick Kit**

An interchangeable core lock picks kit is available from Gerry Finch Locksmith Publications and tools.



This kit contains 4 double-ended mini-picks, 2 small regular turning tools — one standard size plus two special turning tools. These can be used to pick the core to the control shear line and a case.

Because of the smaller size of the best type interchangeable cores, smaller tools are required to pick the core to both the operating and control shear lines.

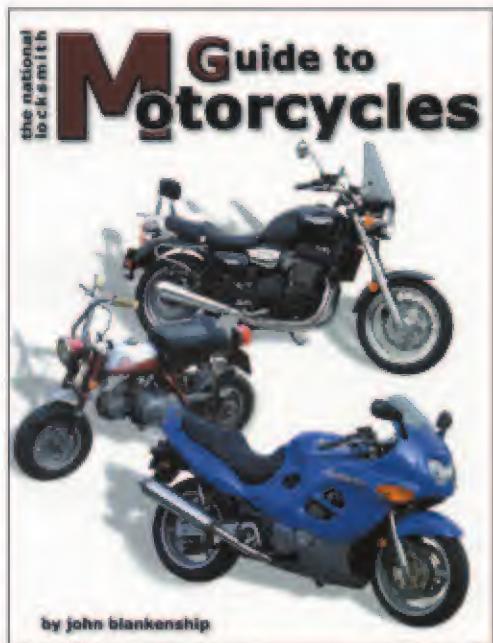


operation caused by vandalism or accidental damage is intolerable. They fit virtually all sensor units available today.

**Keedex Weldable Gate Boxes**

Keedex has expanded its line of weldable gate boxes. Keedex now has more than sixty different boxes that are used for mounting locks and other hardware on gates. This

TNL



## Guide to Motorcycles

For years locksmiths have begged for a comprehensive service manual on motorcycles and it's finally here!

[CLICK HERE TO LEARN MORE](#)



#MOT - 2

# TROUBLE-SHOOTING *Electric Strikes*

## WHAT THE EXPERTS HAVE TO SAY

**W**hat aspect of dealing with electronic security products do locksmiths fear the most? It's the innate fear of working with something that can't be seen - electricity - which seems to strike fear in the hearts of most. That's because when you deal with a security product that requires AC or DC power to operate and things go awry, it often requires diagnosing the voltage or resistance and not the product itself.

Determining and measuring electric current, draw and sources is an area where far too many locksmiths fall short - although it's actually quite simple to do. With a common, easy to use tool (a multimeter or ohm meter) many of your problems can be easily diagnosed and resolved.

We asked several of the leading manufacturers of electric strikes what their most frequently asked questions are regarding product selection, malfunctions and how to diagnose them and installations. Some of the information is repetitive, indicating that many of the problems and solutions are common throughout. By following the examples given, you should never fear or have a problem with an electric strike that you can't resolve, unless of course you botch the entire installation requiring a new door and frame to correct. That's another story!

### ADAMS RITE MANUFACTURING CO.

Installing an Adams Rite 7100 Series electric Strike is easy, but when a problem arises after installation, the cause is usually an electrical problem. Here are some common troubleshooting tips to save you time and frustration in the field:

#### **Strike Won't Activate:**

If the strikes will not activate, it's best to first double-check the fuse and circuit breaker and make sure all



wiring connections are secure. If the strike is still inoperative, it's most likely due to voltage. It's either not there or it's there incorrectly. In either case, use a multimeter to measure the voltage at the strike with the strike attached and energized. The voltage level and AC or DC should match the strike requirements. If the voltage is verified but the strike is still not operable, it could be a failed solenoid. In this case, use the multimeter to measure the resistance across the solenoid wires and compare the values to the installation sheet.

#### **Sluggish Performance:**

Another symptom of incorrect voltage is sluggish operation, or the strike operates fine in one hand and not in the other. This is a classic sign of AC power being supplied to the strike. This too can be remedied by verifying the voltage being supplied to the strike.

#### **Strike Running Hot:**

When a continuous duty strike seems to be running hot, this should not be a concern if the voltage is correct. The normal operating temperature of the strikes ranges from 150 degrees Fahrenheit to 200 degrees Fahrenheit. These temperatures have no adverse affect.

#### **Door Won't Latch:**

If the door does not latch easily, or the strike does not release properly, the probable cause is a tight door gap. Adams Rite strikes are designed to operate with an industry standard 1/8-inch door gap, so make sure this is what you have.

#### **Adams Rite's 7300 Series**

The 7300 Series electric strike is Adams Rite's most compact electric strike yet. Designed for applications where space behind the jamb is tight, the ultra-compact 7300 strikes are easy to install and are strong and secure. The compact mechanism fits into jamb sections as shallow

**Adams Rite 7300 series electric strike.**

as 1-3/16 inches. The 7300's are UL listed for burglary resistance, have a holding force of 1500 pounds and are tested to one million cycles. Each unit is field reversible from fail-secure to fail-safe. The strikes have a low current draw, come in 12 or 24 volt DC and are available for steel, wood and aluminum jambs for Adams Rite or key-in-knob latches.

*For more information contact:  
 Adams Rite Manufacturing Co.  
 4040 S. Capitol Ave  
 City of Industry, CA 90601  
 Phone: 800-872-3267  
 Fax: (562) 699-5094  
 Web: [www.adamsrite.com](http://www.adamsrite.com)  
 Circle 431 on Rapid Reply*



determining what type of electric strike to use.

When you are dealing with existing door hardware, you should choose an electric strike that will perform the same function as the strike plate supplied with the lock. After all, an electric strike without electricity is nothing more than an expensive strike plate. To properly match the two, you need only to know five basic principles.

1. The relationship between the center lines of the lock and the electric strike.

It is important to evaluate whether or not the type of lockset used is center with the electric strike cavity. For example, the center line of the cylindrical lock should be matched up with the center line of the electric strike cavity, whereas the center line of the mortise lock is positioned 3/8-inch below the center line of the electric strike.

2. The depth and positioning of the electric strike cavity.

It is important to select an electric strike with the correct cavity depth to accommodate the lock. Many electric strikes have shallow cavities and are designed to accommodate 1/2 inch throw bolts. Similarly, the electric strike selected should have the cavity positioned to match up with the bolt in the locksets.

3. The type of bolt or bolts on the lock.

There are as many as three components to some locksets, the latchbolt, deadlatch, and deadbolt. Remember that the electric strike will need to provide the same function as the strike plate provided with the lockset. This applies to knob locks, lever locks, mortise locks and deadbolts.

Unfortunately, the ANSI (American National Standards Institute) specifications dictate the dimensions for the body of a mortise lock and its components, but they do not state how the latchbolt, deadlatch and deadbolt are to be arranged on the lock. Therefore, most of the manufacturers design their mortise locks in slightly different configurations. This makes choosing an electric strike to accommodate these locks very difficult.

4. The relationship between the auxiliary dead latch (when applicable) and the electric strike.

When accommodating a lockset with a latchbolt and a

**HES 1003 series electric strike.**



**HANCHETT ENTRY SYSTEMS, INC. (HES)**

As the access control industry continues to grow, so do its related products such as electric strikes. The access control professional's ability to select, install, and service electric strikes is extremely important to the future success of his/her business. This guide is divided into the five following actions:

1. Specify the appropriate electric strike to meet your customer's needs.
2. Identify the basic tools used in the installation of an electric strike.
3. Properly install an electric strike.
4. Understand basic electronics.
5. Learn how to trouble shoot electric strike problems.

Specifying the proper electric strike to meet your customer's needs:

There are over 100 types of electric strikes on the market today designed to accommodate the many different types of locksets available. Couple this fact with the variety of other decisions to be made when selecting the appropriate electric strike and the task can seem overwhelming. The following questions should be addressed when selecting an electric strike.

**Question 1: What are the customer's needs for security?**

You have a choice when it comes to electric strikes in a price range from about \$30 to over \$300. The most important concept you should take away from this guide is, "Do not let the electric strike be the weak link in your access control system." It is imperative that you choose an electric strike based on your customer's needs rather than on price alone.

**Question 2: What type of lock will the electric strike interface with? Cylindrical, mortise, or panic?**

An understanding of the basic relationship between the lock and electric strike is the next essential step in

deadlatch, the electric strike must be designed to properly depress the deadlatch. Failure to do so will compromise the security of the lockset.

*5. A mortise electric strike verses a surface mounted electric strike.*

The term "mortise" is a wood worker's term referring to a rectangle cavity cut into a piece of wood to receive a mating tenon (as in a mortise joint). The term "mortise lock" stems from the rectangle shape of the lock body and the rectangle cavity required in the end of the door for installation. Similarly, when an electric strike is installed in a door jamb so that the face plate is "flush" with the surface the jamb, it is referred to as a mortise installation.

Mortise electric strikes are used to accommodate most types of locksets, including mortise locks, cylindrical locks, and cylindrical deadbolts and unit locks.

A "surface mounted" electric strike is one which is mounted on the surface or side of the door jamb. These electric strikes are used to accommodate "rim" (or surface) mounted panic exit devices and surface mounted latchbolts and deadbolts.

**Question 3: What type of jamb will the electric strike be installed into? Aluminum, wood or metal?**

There are basically three types of jambs that will be encountered in the field, aluminum, wood and metal (steel).

If the electric strike is being installed into a hollow -metal jamb, almost any electric strike will work. However, there is an old adage about "hollow -metal jambs and that is "hollow -metal rarely is." What this means is "hollow-metal" door jambs are usually not hollow, they are most often filled with concrete or other debris. This is done to help stabilize the door and door jamb.

Have you ever tried to install an electric strike with a solenoid protruding from it? It is not difficult to do if the door jamb is truly "hollow." However, it becomes very difficult and sometimes impossible if the jamb is not 'hollow.'

For ease of installation, you will need to choose an electric strike that is "installer friendly". Some electric strikes have the solenoid designed within the body of the strike, making them easy to install.

**W**ood installations present many of the same difficulties as you might find with concrete filled metal jambs. What do you do with an electric strike with a protruding solenoid? In many applications, building codes prevent the installation of an electric strike designed with an external solenoid, when the installation penetrates the drywall. Again, choosing an electric strike that is "installer friendly" can alleviate many of the hassles you may encounter in the field.

Aluminum jambs may present some difficulties as well. Aluminum jambs usually encase glass, both in the door itself and in the adjoining walls. Many times the glass is encased within 1-1/4 inches of the surface of the jamb, making it very difficult to install the electric strike. Selecting an electric strike that is compact enough to be installed in these jambs without cutting into the glass can save you money and time in the field.

**Question 4: What are the voltage requirements?**

Electric strikes come in a variety of voltages, but 12 and 24 are the most common. If no system is present, you can choose the voltage to design your system around it. Many people choose 12 volt because of the easy access to batteries

to back-up the system. The reason one would choose 24 volt is because it has a lower current draw.

**Question 5: What building codes are in place at this installation?**

You will frequently hear the term "Fail Safe" and "Fail Secure" in relation to electric strikes. Fail secure means that if the power fails the building is secure. In other words, the electric strike requires power to unlock. Fail safe means that if the power fails, the building is safe to exit; the electric strike needs power to stay locked. Different types of building codes will require either fail safe or fail secure electric strikes.

If the door is "Fire Rated" by UL or one of the other testing facilities, fail secure electric strike is necessary. This type of door is a barrier door. In a fire, the electric strike and door hardware must contain the door so it will not release. If the door is classified as a "Life Safety" door, the operation of the electric strike must be fail safe. Again, this means that the door will be safe to exit.

You should also be aware that if ADA (Americans with Disabilities Act) apply to the door, an audible (buzzer) or visual (LED) indication of the door status may be necessary.

**Avoiding surprises while saving time and adding to our profit margin:**

In order to increase your profit from any type of job, you should be prepared the first time you visit the site. After reading this long list of variables to be considered when selecting an electric strike, you may be a bit overwhelmed by this task.

**HES 1003 Series Strike**

HES entered the access control market 22 years ago with a strike that revolutionized the industry. After 22 years, the HES 1003 series remains an industry standard for heavy duty, Grade 1 electric strikes. Each 1003 base unit can be combined with one of 25 interchangeable face plate options to create an electric strike that will accommodate virtually every type of lockset on the market. This includes basic cylindrical latchbolts, offset mortise latchbolts and full mortise locksets with a latchbolt and a 1-inch deadbolt. Each of the twenty-five models are interchangeable, non-handed and can be installed in hollow metal, concrete filled metal, aluminum or wood jambs. In addition, the 1003 series meets or exceeds every standard that has been developed for electric strikes. They have been tested to withstand a forcing strength of more than 2400 lbs. before releasing and perform with a minimum of one million cycles. As always, HES stands behind this product with a five-year warranty.

*For more information contact:*

*Hanchett Entry Systems, Inc.*

*2040 W. Quail Ave*

*Phoenix, AZ 85027*

*Phone: 800-626-7590*

*Fax: (602) 582-4641*

*E-Mail: hesmkt@aol.com*

*Circle 432 on Rapid Reply*

**RUTHERFORD CONTROLS INC.**

The most frequently asked questions are how to determine the correct strike for an offset mortise lock. The following is a guideline to gather information to help choose the correct offset strike.



**Rutherford 4504 Penta electric strike.**

plate centerline. Then take a measurement of the height of the latch cavity and divide by two to determine the cavity centerline. Subtract the difference between the plate centerline and the cavity center and this will give you the offset of the mortise lock. Then choose the closest version, either 13/16" or 1-1/16", offset latch entry).

By answering these few questions, it's easy to determine the correct offset strike for mortise locks. Five models cover all of your offset electric strike needs.

**Rutherford 4504 PENTA**

Easily field reversible. Changes from fail locked to fail unlocked in seconds. There are no messy wires to contend with! Just loosen the side screw, slide it into the opposite end of the slot, tighten the screw, and you are in the desired mode.

**Dual Voltage-Fail Locked/Fail Unlocked:**

12VAC intermittent/12VDC continuous duty, current 220mA

24VAC intermittent/24VDC continuous duty, current 110mA

Dual Duty-Intermittent or continuous

Multiple Faceplates-non-handed inserts

UL Approved (highest rating)-1500 lbs. holding force

*For more information contact:*

*Rutherford Controls Inc.*

*2697 International Parkway*

*Suite 100 Parkway Five*

*Virginia Beach, VA 23452*

*Phone: 800-899-5625*

*Fax: (757) 427-9549*

*E-Mail: rutherford@internetmci.com*

*Web: www.rutherfordcontrols.com*

*Circle 433 on Rapid Reply*

1. On what type of frame is the door mounted? (wood, metal, aluminum)

2. What voltage do you prefer? Be specific (i.e., 24V DC).

3. Do you want a fail locked or fail unlocked strike?

4. What brand of mortise lock is on the door?

5. What size is the striker plate on the frame? (overall length and width)

6. What is the handing on the door? (left or right)

7. What is the offset of the latch? (To determine the offset, take an overall length of the striker plate from top to bottom and divide by two; this will determine the striker

## TRIMEC INNOVATIVE LOCKING SYSTEMS

Access control is a booming industry, growing each year. As well as applications in commercial environments, new applications are on the increase in areas such as health and education.

Unfortunately, while vast sums of money are spent with regularity on the access control or alarm system itself, the electronic locking portion of the system, many times, lacks any resemblance to security. The hardware is the only real physical line of defense against unauthorized entry.

The electric strike has been a major player in the electronic locking hardware field for many years and remains on the mainstays of electronic locking today. Applications are found in all sizes, from single door to large PC-based systems controlling multiple doors.

**Selecting A Strike:**

All strikes work on the principle of electronically controlling the temporary free movement of the keeper, allowing for door opening without manual retraction of the latchbolt. However, many factors contribute to which strike should be used in an application.

**Type Of Lockset:**

The first determination that needs to be made is the type of lock that the electric strike will be controlling.



**Trimec electric strike.**

1. Cylindrical
2. Mortise
3. Rim exit device
4. Position of electric strike cavity - center line of offset.
5. Latch projection - 1/2-inch, 5/8-inch or 3/8-inch

#### **Level Of Security:**

The level of security needed for an application is the next step. There are 3 levels of security:

1. Light duty (traffic control): Normally requires no minimum holding force or UL 1034 burglary resistant listings. These are usually AC voltage, and accommodate low-cost and low usage door entry systems.
2. Medium duty: The holding force of a medium duty strike should be at least 1,000 lbs., and will generally meet UL 1034 at a low level.
3. Heavy duty (high security): Generally have a holding force of more than 1500 lbs. (some have up to 3,000 lbs.), offer warranties up to 5 years, have been tested to 1,000,000 or more cycles, and carry the UL1034 listing at the highest levels.

#### **Type Of Door Frame:**

The type of door frame will also help in the selection of the strike to be used.

1. Aluminum Frame: Are generally a lower profile with a shallow depth for the installation of a strike. There are several manufacturers producing "low profile" strikes that are under 1-1/4 inches in total depth, making them easier to install. The standard size of strikes used in aluminum doors is a 4-7/8 inch ANSI style face plate, and many doors come pre-fabricated with this size strike cutout.

2. Wood Frame: Due to the lower surface strength of wood when compared to aluminum or hollow metal, a larger area faceplate 6-7/8 inch to 7-15/16 inch should be used with a wooden door frame. This will provide a stronger installation of the faceplate to the frame. It should also be pointed out that a low-profile strike is ideal for the wood frames because less mass must be cut out, helping to keep the structural integrity of the wooden frame.

3. Hollow Metal: Much like the aluminum frames, hollow metal frames come pre-fabricated generally with a 4-7/8 inch ANSI style cutout for the faceplate. Typically, the hollow metal frame offers a greater depth for the installation of a strike, unless it is concrete filled, where again a low profile strike should be used.

The installer must also make sure to know if there are any building codes pertaining to the specific door, including UL Fire Rated Door, or Life Safety Door codes.

#### **Monitoring:**

At higher security levels, electric strikes offer optional monitoring. These monitor switches and in some cases LED monitors, can provide monitoring of the insertion of the latch into the strike (door position), as well as the locked position of the strike. These switches can then be monitored by the access control or security system.

#### **Fail Safe or Fail Secure:**

The two feature fail safe or fail secure are very much site dependent. When a strike is fail safe, the door will be free to open in case of a power failure. When a strike is fail secure,

the door will be locked when there is a power failure. In an effort to provide installers with greater flexibility, some manufacturers have made their products reversible from fail safe to fail secure (some are easier than others)!

#### **Power-AC or DC, 12 Or 24 Volt:**

**W**here security is involved, one cannot always expect a low cost AC strike to offer the same level of security that can be achieved by using a medium or heavy duty DC strike. Most of the low cost door entry systems operate on AC rather than DC. AC produces the familiar buzzing sound, which is not heard when using silent DC operations. In an effort to provide the familiar buzz, many manufacturers now offer an independent buzzer with their DC strikes. The voltage (12 or 24V) must also be selected.

#### **Conclusion:**

Electric strikes have been in the market place for quite a number of years, and the basic concept has remained basically unchanged. However, technological advances have made them easier to install, made them stronger and provided easy mode conversions and sophisticated monitoring systems.

The underlying concept of strikes has remained unchanged too, and that is security. When cutting the cost of security installation, the electric strikes quality and security level should never be compromised, as it is one of the most important parts of the physical security.

#### *For more information contact:*

Trimec  
835 Sharon Dr.  
Westlake, OH 44145  
Phone: 800-987-4632  
Fax: (440) 871-1870  
E-Mail: sales@trimec-usa.com  
Web: wwwtrimec-usa.com  
Circle 434 on Rapid Reply

## **TRINE PRODUCTS COMPANY**

The most common technical questions that are asked on a daily basis are often product-specific. They relate to subjects such as: voltages that are available for a particular strike model; product templates or specific strike features. These questions, though relevant, are usually answered in the manufacturer's catalog. The broader questions, regarding application, are probably more in line with typical electric strike concerns. The following is a sampling of what seems to be the most common interest among callers.

*"You manufacture 32 different electric strikes. Which one do I need?"*

The application will narrow this down quite a bit. Ask yourself, what are the traffic conditions-heavy, medium, or light? What is the composition of the door and frame-heavy, medium, or light? What duty lockset is in use-heavy, medium, or light? Select a strike that matches the traffic and hardware grade in use. If you have a heavy duty, UL listed mortise lockset with a 3-piece anti-friction latchbolt, a Model 001 is not a match, but an EN Series, heavy duty UL tested electric strike meets the grade. If the application is a hollow veneer interior door with a non-grade cylindrical lockset with a half-inch latchbolt, an EN Series strike would be overkill, but the 001 is a match.



#### Trine EN-LB Infrared Security Sensor.

*"The electric strike stopped working and I replaced it with the same model, but it still does not work. What's up?"*

This brings up a few good points that will be touched on briefly. Often, we replace a healthy strike because of some other failure. We could simply check the strike coil's resistance and compare it to the product's ohm's specification. This tells us if the strike's electric coil is good and the problem is elsewhere.

**E**rratic buzzing and operation suggest the problem might be the low voltage power supplied to the strike. Checking the supply at the power wire leads in the door frame confirms whether the strike is getting the required voltage to operate properly. Too low a voltage can be due to a wire short, loose connection or a depreciated step-down transformer.

A simple test is to touch the wire lead of the new strike directly to the transformer contacts to see if the strike works. If not, you can bet the transformer needs replacement. If it does work, then the problem may be in the wire run connecting the transformer to the electric strike.

If it is a fresh installation, the transformer may not be of a high enough VA rating (power), or the gauge of the wire used may be too small for the distance between the transformer and the strike, causing resistance to the flow of power. New transformers initially put out a few volts more than the rated value and in time drop below their rating, falling outside the plus or minus voltage range that an electric strike is designed to tolerate.

*"I replaced the burned-out strike and found the replacement burned out too. What's wrong?"*

For one thing, we often match voltage and not current. The AC transformer provides low voltage, alternating current and DC delivers direct current. The constant flow of DC current through an AC strike can damage the coil because of the lower resistance (ohms), which is

determined by the amount of copper windings on the electric coil.

Electric strike AC coils are meant for intermittent power-on operation. Therefore, they are only available in fail secure action, where momentary power is required to unlock the door. The higher resistance of the DC coil assembly allows for continuous power-on duty. This is appropriate for fail safe action, which requires constant power to remain locked.

It is also necessary in a fail secure application when a strike is required to remain unlocked for an extended period of time (longer than one minute).

In a continuous duty application, whether fail safe or fail secure action, a DC electric strike should be used.

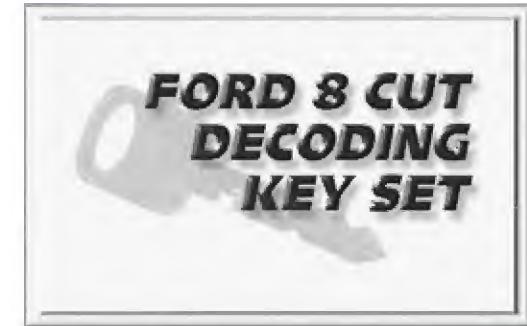
#### Trine En-LB Infrared Security Sensor

Trine's optical IR sensor automatically confirms positive latching of a lock set within an EN strike. It continually monitors whether or not a latch bolt has been retracted by transmitting a signal that can be implemented in either an audio or visual notification system. The device utilizes a non-mechanical Honeywell® Infrared Sensor featuring a weather resistant heat sink module. It is unaffected by ambient light and includes four sensitivity settings that permit adjustment to various latch bolt configurations.

*For more information contact:*

*Trine Products Company  
 1430 Ferris Place  
 Bronx, NY 10461-3699  
 Phone: 718-829-4796  
 Fax: 718-518-7022.  
 E-Mail: accesscust@trineprod.com  
 Web: www.trineprod.com  
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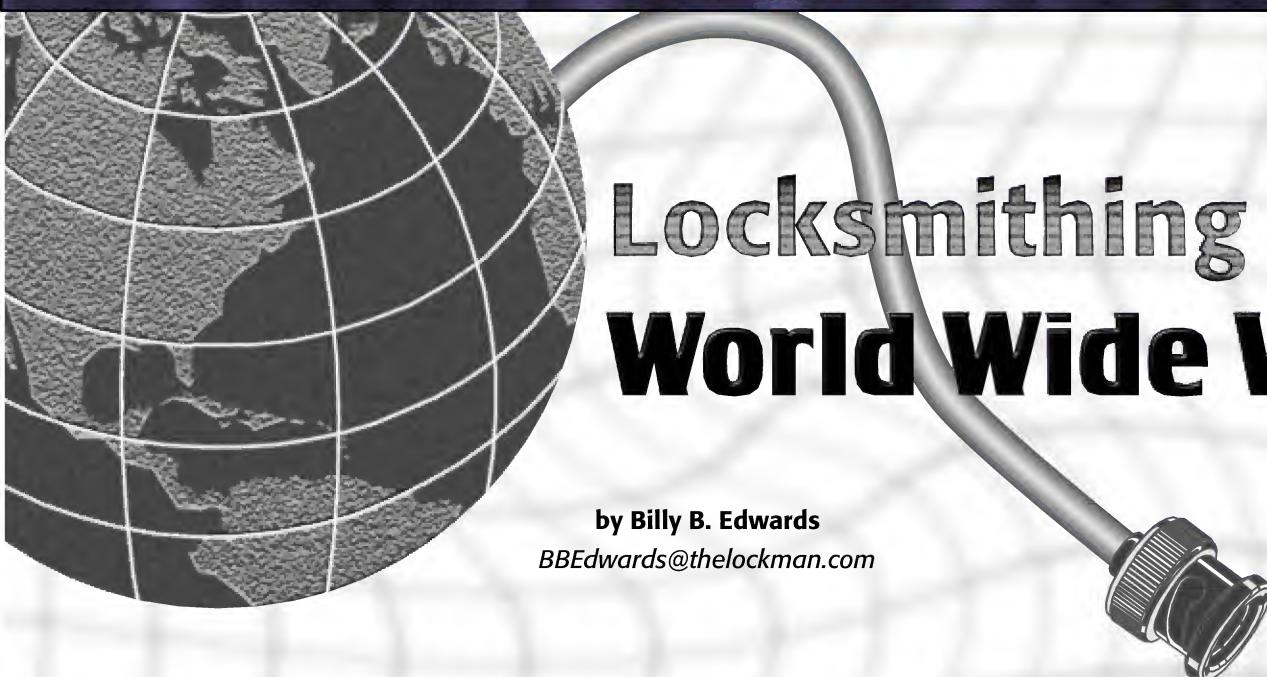
## Ford 8 Cut Decoding Key Set



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#FD - 8





# Locksmithing on the World Wide Web

**Part 1**

by **Billy B. Edwards**

*BBEdwards@thelockman.com*

In the early 1980's when I bought my first computer it wasn't possible to get on the Internet unless you were in the education system or part of a government net. The frustrating thing was that there was lock related stuff on the net even then. Mostly things from college students learning how to pick locks and posting on the alt.locksmithing news group.

Today it's a different story. Today the Internet is available to anyone who has a phone line to connect to the computer. All you need is some communication software (called a browser), and an Internet Service Provider (ISP). It's hard to buy a computer today that doesn't have a modem (a telephone device the computer uses to 'talk' on the line), and the fastest speed modem which can talk at 56,600 bytes per second seems to be the standard now.

ISP's are plentiful now. Typically you can rent access to the net at a rate of \$20.00 per month from most ISP services. For your fee you usually get unlimited access to the Internet plus an e-mail address (see my by-line for an example), access to free news groups and space on the ISP computer to have your own Home Page on the World Wide Web. Some ISP's even have on-line software to help you make the home page and their tech support people will help you over the rough spots.

What is a home page on the WWW? Think of it as an advertisement that can be aimed in any direction. It can be strictly business oriented and present

your business to the on-line world. It can be a listing of personal information about you and your family. It can be anything in between those extremes.

What can be found on the Internet is amazing. Before doing this article I looked at an issue of *The National Locksmith*. I picked the June 1998 issue because it would have a lot of advertisements in preparation for the ALOA show. I counted 120 advertisements and 42 of them included an Internet address. There were a few of them that didn't include a net address and I have been to their home page. That means that participation by the places where we get our goods is just under 40%. Some of the distributor sites include an on-line catalog and ordering system. I like that because I tend to do my inventory evaluation in the evening when I have fewer customer calls and now I don't have to interrupt my day calling in orders because I have done it on-line.

The best, most important, number one thing that can be found on the net is information. That information can be found many ways. Of course you can find all of those advertisers via their web addresses. You can find other locksmith home pages. You can even find the Clearstar Security Network, *The National Locksmith* online and other places of specific interest. All have on-line forums where you can post questions and get answers for technical information. If your timing is right, you can have answers in minutes.

The easiest way to find anything on the Internet is to use a search engine. A search engine is an interesting tool. The way it works is that you type in the subject that you are looking for and it finds places on the Internet where that subject is mentioned. The more words you type in, the better your chances of finding exactly what you are looking for. The thing about search engines is that they find every use of the words you type into them, usually what you are looking for will show up in the first few hits if you type in enough words.

For example; I typed in the word 'national' in a popular search engine and it found 2,502,864 places where that word is used on the net. Everything from Biology to volleyball in the first 50 on the list, but no *The National Locksmith*. When I entered 'national locksmith' I got a listing of 2,506,804 places that had either of those words, but four of the first six places were related to TNL. Search engines work better relative to how many words you are looking for. The listing it produces is usually rated according to the percent that the item matches what you searched for.

Another practice that makes things easy to find on the net is the use of vanity addresses. An Internet address is unique and is better known as a URL which stands for Uniform Resource Locator or Universal Resource Locator depending on who you are asking. A URL is usually

presented as a text address. Your computer then takes that text address and converts it into numbers that are something like telephone numbers for the Internet. Just like the telephone, accuracy counts. If you get an error message from typing in an address, take a look at what you typed first to make sure that isn't the error. A typical address would be; [www.TheNationalLocksmith.com/index.htm](http://www.TheNationalLocksmith.com/index.htm).

The www part tells the computer to look on the World Wide Web, kind of like a country code. The second part is called a Domain Name and is comparable to an area code within the country. The part of an address immediately following the 'www' is called a high level domain name and in this case it is as if TheNationalLocksmith is a whole country. The next part of the address (com) is a classifier which tells you what type of domain this is, in this case a commercial one. The last part of the address is like a specific telephone because it makes sure that you are going to see on the screen the contents of an HTML document stored at this address.

**Y**ou don't really need the last part of the address since the browser will automatically look for a file called 'index.htm' wherever you tell it to go. What that means is that you could just try to enter any company name as the high level domain name and in many cases will be lucky enough to get where you want to be. The only problem you may encounter is the classifier part of the address. For example, ALOA isn't a commercial site and since ALOA is a not-for-profit organization, the classifier used is "org". There are a few other classifiers you might run into also, "gov" is used for government sites and "net" is used by some ISP's and other places that only exist because of the net. Educational institutions are indicated by "edu" and the only other classifier common today is a two or three letter abbreviation for the country. Some examples are "ca" for Canada, "au" for Australia, etc.

Yet another way to get somewhere is to use a link. Many Internet sites have a specific page that can be used to 'link' to other sites of interest. A locksmith in California, Everett Dobbs of Lee Dobbs

Locksmith, has set up a site with nearly 500 security industry related links. Michael Hyde recently started a special page he is calling the Locksmith Yellow Pages where he supplies free links.

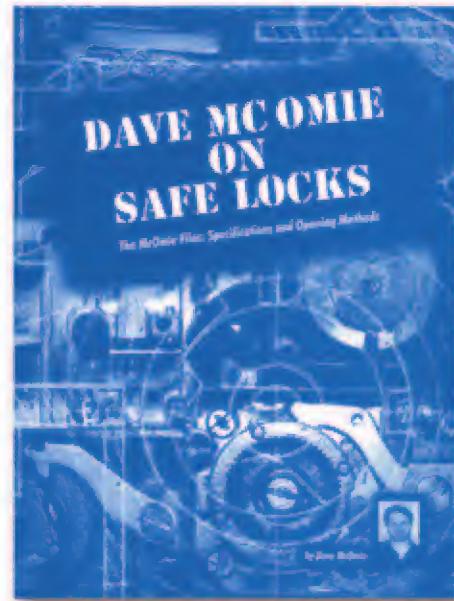
There is one really nice feature of browsers that will become invaluable. It is called a 'bookmark'. Once you are looking at a site that you might want to visit again, you can click on a menu item labeled bookmarks and then 'add bookmark' and the browser will remember the address for you. Later if you want to go to that site, just click

bookmarks again and a list of all sites you have marked will appear. Click the one you want and the browser will take you there.

Estimates place the number of locksmiths in the US at around 60,000 and right now only about 1% of us are on the Internet. If you can, get on the net now and get a home page going. With the estimated 60 million people (read that potential customers) on the net now, and growing by about 40,000 new signups a day, it is the market-place you want to be in tomorrow.

TNL

## Dave McOmie on Safe Locks



Almost 300 pages of information, photographs and illustrations give you every scrap of information about a huge variety of safe locks.

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#DMSL - 1



# The 1997 Mitsubishi Eclipse



by  
Michael Hyde

## Part 1

1

This is the first of a two part series. The Eclipse is a sporty and popular car. The Eclipse is not a difficult car to service except for a couple tricks. This car uses the standard Mitsubishi keyway. The code series is 5000-7679. The key is double sided, has 8-cuts on each side and four depth possibilities. The car has dual front Airbags. The door lock linkage is horizontal.



### Opening

2

The car can be opened using a slide linkage tool and a couple of good wedges.



Attach the opening tool to the rod shown.  
Bind the tool to slide the linkage rod  
towards the front of the car.

3



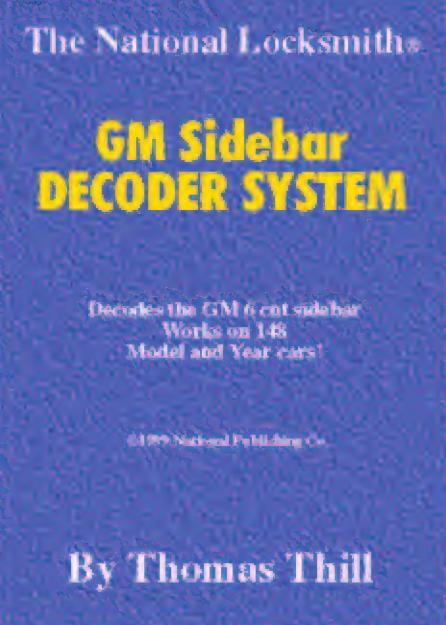
## *Ignition Lock Servicing*



To service the ignition on this car is simple since it utilizes an active retainer ignition cylinder.



Remove the three Philip heads screws from the underside of the plastic two piece column shroud. Then gently unsnap the shroud.



## **GM Sidebar Lock Decoder System**

Tom Thill, the author of a new book, has invented an amazing new way to make keys for six cut GM Sidebar Locks.

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6

Insert a working key, rotate it to the "ACC" position, and depress the retainer to slide out the ignition cylinder.



7

The ignition lock cylinder.



8

To service this cylinder you will need to remove the "trу-arc" ring on the rear of the cylinder. Insert the working key and slide out the cylinder plug.



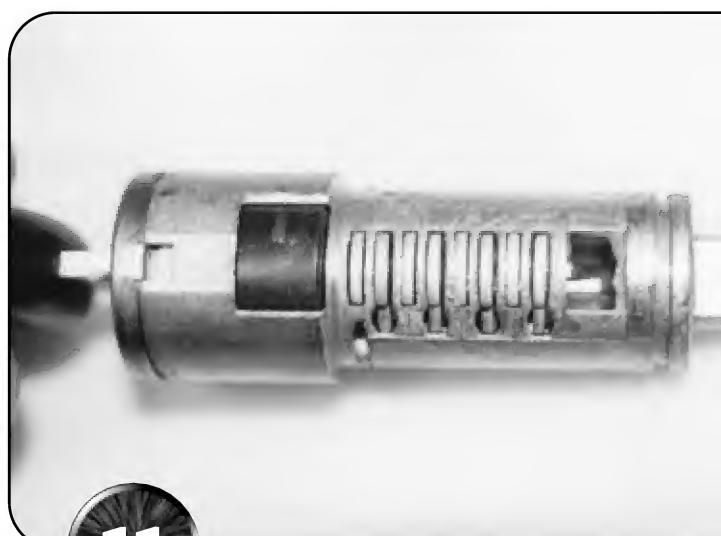
9

When working with the cylinder plug, be careful not to lose the buzzer activator, as it can easily fall out.



10

The ignition lock disassembled.



11

The plug contains all eight tumblers.

## Door Lock Servicing



**12**

The door lock cylinder is part of the door handle assembly and the cylinder is held in place by a clip.



**13**

The inside door panel is shown.



**14**

You must remove the door panel to service the door lock. There are two screws on the front of the panel and two on the rear of the panel that must be removed.



**15**

There is a screw hidden under the trim cover for the door panel pull cavity. Remove the screw.

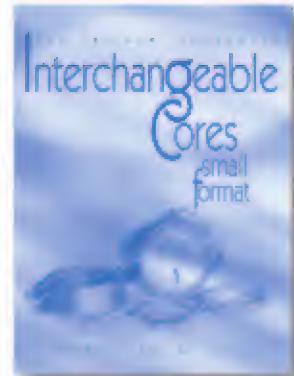
## IC Cores: Small Format

Everything you ever need to know about how to sell, service, install and troubleshoot interchangeable cores!



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#ICSF - 1



Pull outward on the inside door handle to see the phillips head screw that has to be removed.

16



17

There is a screw hidden behind the plastic cover for the mirror mounting access. Push in the center plug of the plastic retainer about  $1/4"$ . Now remove the plastic retainer. Remove the cover.



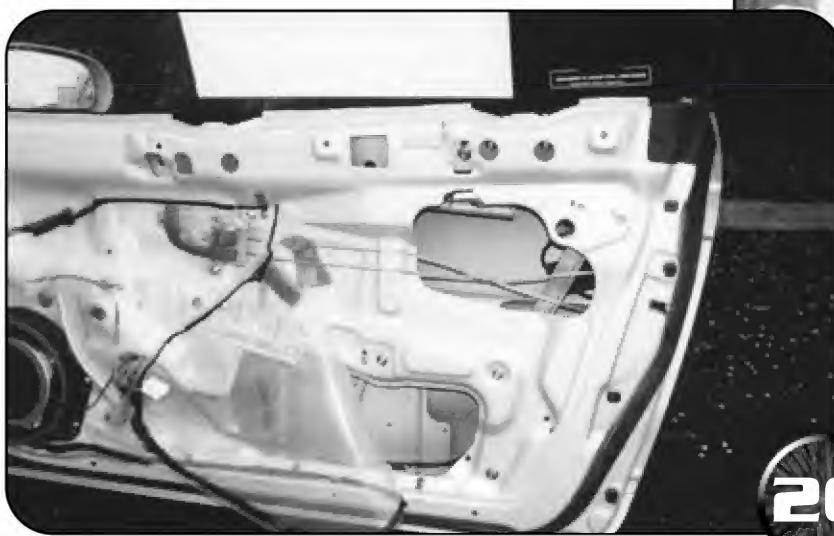
18

Remove the last panel screw.



19

The door panel is held to the door by the standard plastic push in style clips. Remember to disconnect the wiring going to the door panel.



20

A view of the door with the panel removed.



21

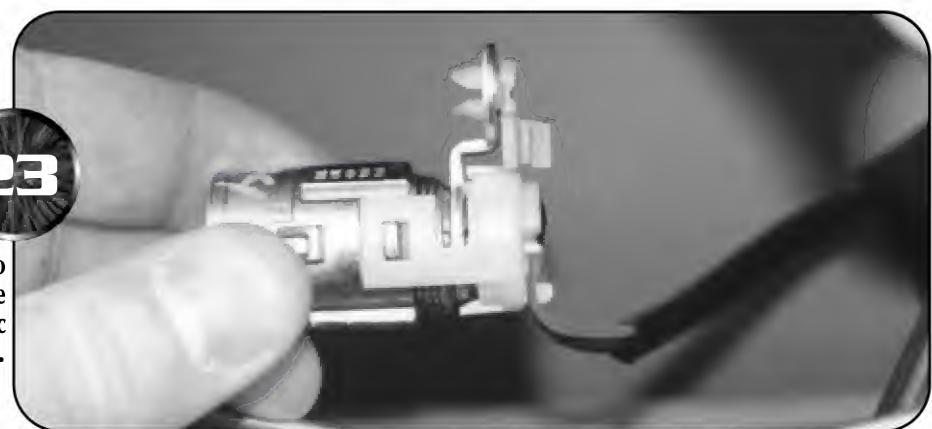
To remove this lock it is necessary to loosen the 10mm handle bolt above the lock cylinder. The door glass blocks direct access to the bolt. You will need to loosen the bolt with a 10mm wrench.

22

Next, remove the other handle 10mm bolt on the side of the door.

23

There should now be enough room to slide the lock cylinder out of the handle. Disconnect the electronic switch that sits on the rear of the lock.



## GM Steering Column Course

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**24**

There is a plastic spacer ring that sits in front of the lock cylinder while the cylinder is mounted to the handle. Make sure the spacer ring is in place before you re-install the cylinder to the handle.



**25**

The passenger door cylinder is the only cylinder with a code stamped on it. While other cylinders will have numbers stamped on them, those numbers are either production codes or part numbers.



**26**

The tailpiece must be removed. It is held in place by a "C" clip.



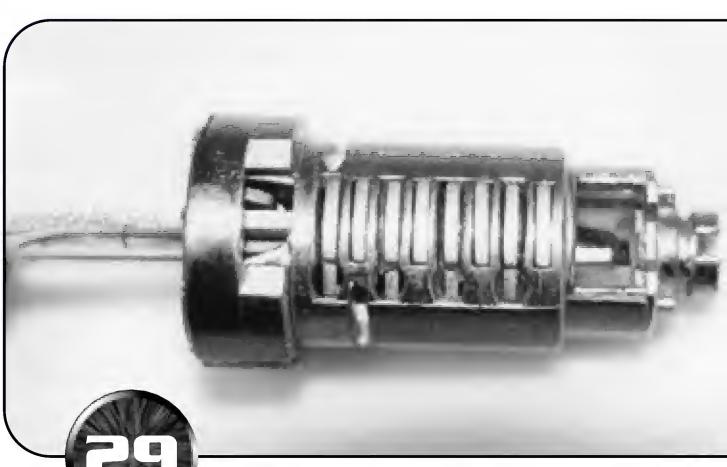
**27**

The face cap must be removed. It is reusable.



**28**

The door lock disassembled is shown.



**29**

The door lock cylinder plug contains all eight tumblers.

Next month we conclude this article by covering the Hatch lock and glove box lock. See you then.

Ilco's

# ECM-100 Code Machine

by Jake Jakubowski



1. The ECM-100 is specifically designed to cut original automotive and commercial type cylinder keys.

Ilco is continually developing new techniques, programs and products. The ECM (Electronic Code Machine) 100, is a prime example of that statement. (See photograph 1.)

The ECM-100 is specifically designed to cut original automotive and commercial type cylinder keys. Its brain is an on-board computer that controls all the aspects of cutting the selected key once you have chosen the code or key bittings that you want to cut. It is designed to be used as a stand-alone unit that is programmable from the keypad, or it can be connected to a PC and have the information sent electronically.

Key generation on the ECM-100 is simple. Just enter the direct code into the keypad. (See photograph 2.) Put the key blank in the vise jaw and press <Enter>. (See photograph 3.) The machine will cut the key automatically.

To cut a key by code on the ECM-100, you turn the machine on, press "CODE," place the key in the vise and, in this case, shoulder gauge the key. The display will show "Enter Code" and you enter the code series. Press "Enter" and "Working ... Press any key to abort" will show on the display as the carriage moves the key across the cutter. (See photograph 4.) Photograph 5, shows the perfectly cut Nissan key.

An interesting feature of the ECM-100 is that when a double sided key code is entered and the carriage brings the key into contact with the cutter, the carriage hesitates for a second before continuing the cut. What's happening is this: The blank is "bottomed out" in the vise and the machine is actually "measuring" the depth of the blade. Once the ECM-100 has determined the blade depth, it cuts the key and then instructs you to turn the key over and cut the other side!

When you turn the blank over and clamp it in the vise (and press "Enter") the ECM-100 again brings the blade of the key up to the cutter, hesitates,

determines the position of the key in the vise, i.e., the blade depth, and cuts the second side.

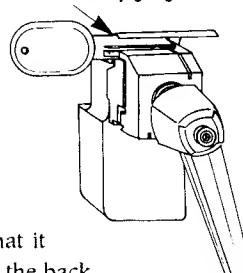
The ECM-100 capability to cut double sided keys on both sides — and stay well within accepted tolerances — is due partially to its unique key stop/referencing guide, its programming and a great deal of engineering expertise. It's also a time saver, since there is no need to code cut one side of the key, and then duplicate that key on to another in order to cut both sides.

To cut a key by List # is a fast way to tell the ECM-100 the manufacturer's

#### A. How to shoulder gauge and tip gauge keys.

##### Shoulder aligned keys

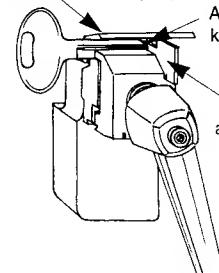
Align the shoulder of the key blank with the key gauge.



It is very important that the key is straight in the vise jaw, and that it is flush against the back of the jaw. Use the service pin if necessary.

##### Tip aligned keys

Align the edge of the key blank with the key gauge.



Align the tip of the key blank with the alignment tool  
 Place the alignment tool in the vise jaw as shown.



**2. Key generation on the ECM-100 is simple. Just enter the direct code into the keypad.**



**3. Put the key blank in the vise jaw and press <Enter>.**



**5. A perfectly cut Nissan key.**

**4.**  
**"Press any key to abort" will show on the display.**



name and code series. The ECM-100 comes with a List Number Reference Guide that allows you to look up a specific manufacturer, determine the series you want to cut and punch in the number given in the guide. In this case, that number was 649. *Photograph 6*, shows the finished key.

*Photograph 7*, shows the unique key stop indexing arrangement that Ilco designed for the ECM-100. Notice that the key stop runs the entire length of the key's blade. When you reference a key with this stop, the key sets solidly in the bottom of the vise and is perfectly aligned so the key will actually be an "original."

In case you were to forget to flip the key stop out of the way, *photograph 8*, shows the other end of the key stop. The small arm that is attached to the key stop will hit that block and cause the stop to flip out of the way before it reaches the cutter.

If you don't want to cut a key by code, or you don't want to look up the List # for a given manufacturer, you can cut the key by using the manufacturer's name. Simply use the alphabetical keys to enter the manufacturer's name. Once the manufacturer shows up on the display, press "Enter" and follow the prompts given on the display.

*Illustration A*, shows how to shoulder

gauge and tip gauge keys. As with any machine the alignment of keys in the vise is critical to generating a properly functioning key. However, with the ECM-100 you have the added security of the machine telling you if you have inserted the wrong key blank or forgotten to put a key in the vise. It will also tell you if you have instructed the machine to cut too close to the vise. In that case Ilco has provided two service pins to allow for keys with too wide a milling to be clamped properly or for raising the blank to accommodate deep cuts. (*See Illustration B*.)

*Photograph 9*, shows the two service pins provided with the ECM-100 and the combination tip stop and cutter alignment tool (far right) that are included with the machine.

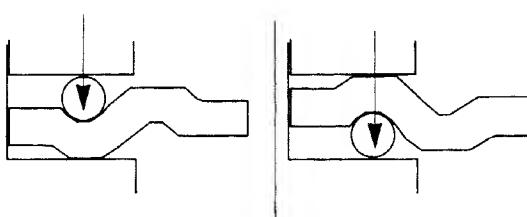
*Photograph 10*, shows the ECM-100's deburring brush. I think this is a great feature on a code machine, especially in a mobile application. You don't have to cut the key on one machine and deburr it on another.

**O**f course, most of what I outlined above is obviously only the basics of what the ECM-100 is capable of. The full range of options provided by the ECM-100 range from features that allow

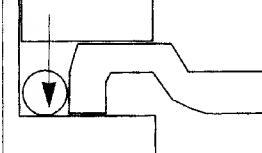
**B. Two service pins to allow for keys with too wide a milling to be clamped properly or for raising the blank to accommodate deep cuts.**

**Using the service pin**

Keys with rounded or wide milling may tip in the vise jaw. Place the service pin into the groove closest to the back of the key to keep the key straight.



The service pin may also be used to shim the key to make deep cuts. Place the pin behind the key in the back of the jaw.



Types of cuts

**Trace cut**

The cutter cuts as if it was following the contour of a model key with peaks



**Ideal cut**

Similar to trace, but the cutter removes the peaks between the cuts



**Plunge cut\***

Cuts in bites (not a continuous cut); requires a special cutter



**Smart cut**

Automatically selects the type of cut specified by the manufacturer.

- 1. Trace cut
- 2. Ideal cut
- 3. Plunge cut
- 4. Smart cut?

The blinking cursor shows which type is currently selected

Enter a number to select the type of cut you want.

\*WARNING: When using a slotter cutter, you must specify plunge cut to prevent damage to the machine and cutter.

you to select the unit of measurement (mm/inches) to the order of displayed information to the type of cut. (See illustration C). Other options cover temporarily modifying the machines settings or resetting them as required. The ECM-100 programming includes PC interface, upgrades of ECM-100 Software, code and key design and much more.

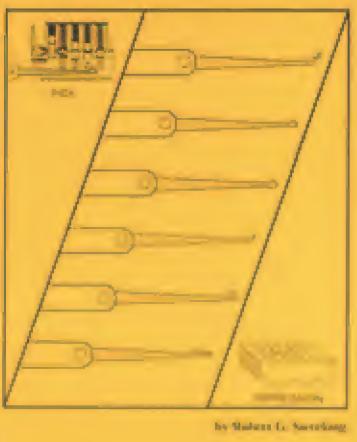
The lighted display is easy to read in all light conditions. The keyboard is well arranged. The ECM-100 is pre-loaded with a data base in excess of five hundred of the most popular keys. That data base includes direct and indirect codes, manufacturer's names, list numbers, etc.

With the large pre-loaded data base, the ECM-100 will cut most cylinder keys that you may find necessary to originate. At the present time, however, there is no provision for cutting Medeco or Medeco's KeyMark®. It will however cut Best, Falcon, Peaks, and Arrow interchangeable core. All

**C. The full range of options allow you to select the unit of measurement (mm/inches) to the order of displayed information to the type of cut.**

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#PI

of which means the ECM-100 is currently capable of cutting the majority of cylinder keys that you need cut.

Unfortunately, the early versions of this machine are 115VAC capable only. So, unless you have at least a 500 Watt Redi-Line converter or good quality inverter, you'll have to put up with the inconvenience of carrying an extension cord. Of course, the lack of DC operation, without an inverter, is only a problem if you use this machine in a mobile operation.

**O**ther than the power supply the only other suggestion I could make is in reference to the List Reference Guide. It would be nice if there were some way of putting the list numbers on a laminated card, or series of cards. The format in which it is currently printed (paper booklet) will probably get pretty tattered in a very short time with heavy use.

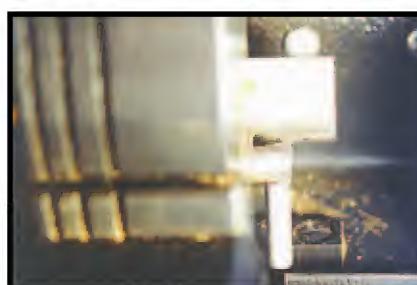
*For more information on the ECM-100 and the name of a distributor call Ilco Unican at 1-800334-1381.*



**7. The unique key stop indexing arrangement that Ilco designed for the ECM-100.**



**9. The two service pins provided with the ECM-100 and the combination tip stop and cutter alignment tool.**

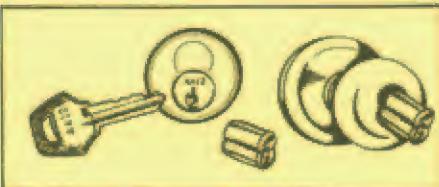


**8. The small arm that is attached to the key stop will hit that block and cause the stop to flip out of the way before it reaches the cutter.**



**10. The ECM-100's deburring brush. I think this is a great feature on a code machine.** **TNL**

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**INTERCHANGEABLE CORE CYLINDERS**

**textbook**

With step by step instructions  
 by Dan O'Neil

#ICB - 1

## Interchangeable Core Cylingers

Covers all this...

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- Best A3
- Best A4
- Corbin X Removable Core
- Corbin Z Removable Core
- Russwin Removable Core
- Emhart System 70 Removable Core
- Sargent Removable Core
- Schlage, Yale, Lockwood
- Medeco Removable Core

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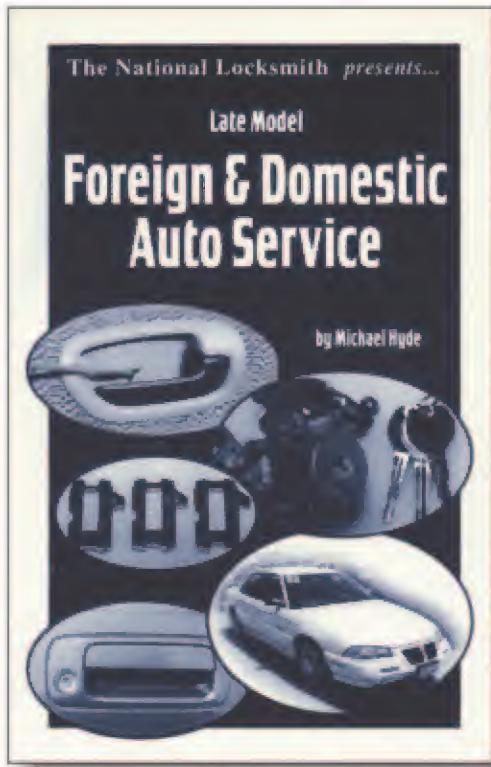
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# Foreign & Domestic Auto Service



This book represents the best work of Automotive Locksmithing guru Michael Hyde, author of the famous AutoSmart.

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TNL

# PRODUCT SHOWCASE

**ISC West Show - March 1999**

## Marlee Electronics Corp. VF Series

Marlee Electronics has introduced the new VF Series telephone entry and access system. This new model features a four line scrolling vacuum



fluorescent display, an enlarged keypad, one touch dialing, a cast aluminum cover and a self diagnostics' module. In addition, the new system features an easy to use Windows PC software to remotely program the system and up to two card readers can be attached for access control.

Commercial applications? No problem as the system will navigate through auto-attendants!

## Securitron Strike Alternative

Securitron Magnalock Corporation is proud to announce the revolutionary UnLatch™, motorized electronic strike.



The unique patented UnLatch™ technology, actually pushes the door latch into the lock body releasing the door- even under 30 lbs. of pre-load. Unlike

traditional electric strikes, the UnLatch™ maintains continuous deadlatch security. The device takes the place of traditional electric strikes, by allowing the installation into an ANSI 4-7/8-inches cutout without door frame modification.

As an added benefit, the UnLatch™ comes with a built-in monitor that can signal the door is latched providing the ultimate in security monitoring. The UnLatch™ is backed by a two-year warranty.

## Curtis Offers Qualtec Security Product

Curtis Computer Products now offers the Qualtec Notebook-Kit II that will put individuals and corporations at ease about the all-too-common problem of notebook computer theft. This product allows users to lock down their notebooks securely in virtually any location, including the office.

Manufactured and marketed by Muscatine, Iowa-based Curtis Computer Products, and Qualtec Security Systems is a branded product line of anti-theft security devices that safeguard PCs, stored data and other office



Circle the numbers on the **RAPID REPLY CARD** and send it in.

machines.

## Digital Monitoring Key



## Ring Transmitter

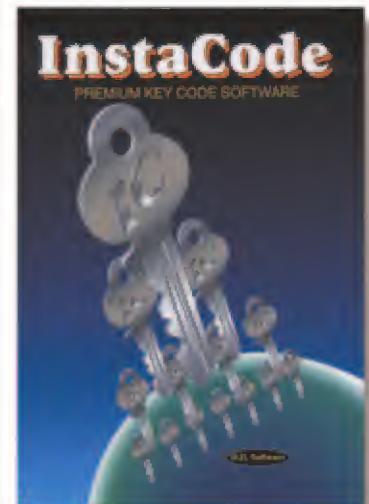
Digital Monitoring Products, Inc. has released the Easy Entry™ RF Series Wireless Transmitter and Receiver. The model 575 key ring size transmitter can open a garage door from 150 feet, arm/disarm a DMP XR10 or XR20 panel, provides a panic alarm, or operate auxiliary lighting and X10 controllers.

The model 570 receiver connects easily to the keypad bus of the DMP panel and garage door system. A high intensity LED wall plate is included to visually indicate exit delay and system armed status. Secure transmitter code encryption randomly uses four billion codes that never repeat.

## Continental Instruments NT Based CardAccess® 495 System

Continental Instruments has introduced its newest and most advanced Access Control system running on Windows NT. This innovative, feature-rich integrated security system offers a vast range of capabilities including multi-user operation (dozen of workstations), user-configurable employee

# InstaCode

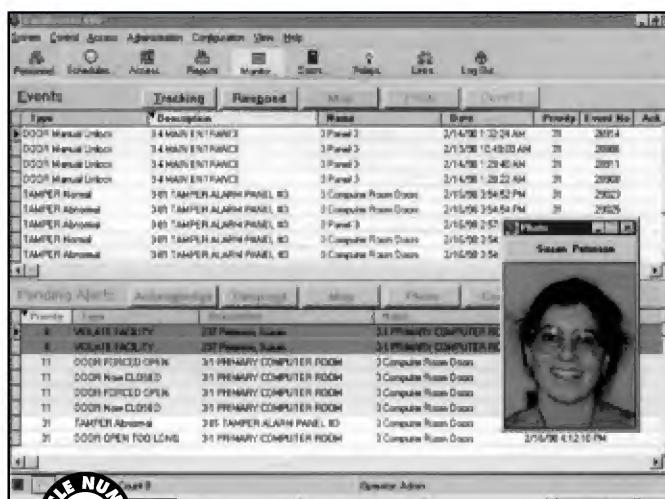


Your total code and code machine management program.

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#IC - 2001



**CIRCLE NUMBER**  
424

database, integrated alarm monitoring and relay control, operator activity and response logging, video verification, user customized reports, ID badging, extensive help screens and building management functions.

The NT operating system will make the access control system more attractive to the IT and MIS departments in many corporations. Running an organization's existing enterprise system on NT servers should allow for a more seamless integrated system.

## Secura Key SK-NET™



**CIRCLE NUMBER**  
425

## Access Control System

Secura Key announces the new SK-NET™ Access Control software that, together with the all-new 28SA-Plus Smart Access Control Units controls up to 128 doors. This system combines the power and ease of use of Windows® with fully distributed processing.

Features like graphical time zone displays and drag and drop creation of access groups make programming a breeze. In addition, virtually unlimited locations can be controlled using the optional Global Dialup Option.

The ENTRACOMP-@28SA-Plus

now offers True Antipassback, which tracks cardholders' IN and OUT status between multiple 28SA's, even without a PC online.

## Optex Solar Powered Sensor Light LA-30 (E)

Optex Solar Power, Optex

America Inc. has released the LA-30 (E), Solar Powered Sensor Light. This compact sensor light is completely self contained getting its power from the sun. No more messy costly wiring, The weatherproof design and



**CIRCLE NUMBER**  
426

convenient wall or vice mountings allow the unit to be easily mounted just about anywhere. The 20 watt halogen bulb (included) gives bright lighting for driveways, walkways or anywhere you need extra light at night. The perfect add-on product for the professional installer.

## Monarch DisKlox

Monarch introduces DisKlox, a security device to assure that data cannot be downloaded to disc, or that inappropriate material or a virus cannot be loaded through disc drive ports on computers. The simple device inserts into the slot of the drive bay and locks into place. Inexpensive



and ideal for individuals or for businesses seeking added security for their computer systems.



**Seco-Larm's New Electric Door Strikes**

Seco-Larm introduces its new electric door strikes designed for use with cylindrical lock-sets for door release purposes. The electric door strike converts the cylindrical lock set to

an electronic access controlled locking system. The electric door strike can be used on virtually any cylindrical door locking system. When used in conjunction with a digital keypad the unit assures high security without the need of a key. The SK-990 can be easily connected to Seco-Larm's part SK-983A Electronic Keypad. Both electric door strikes have CE approval.

Available in two different models the electric door strike is suitable for most applications. The fail-secure model (SK-990A) is designed for entrance door installations, locking the door when the power is off and unlocking the door when the power is applied. The fail-safe (SK990B) is designed for fire/emergency door or escape installations, locking the door with power is connected and unlocking with power off.

**Automatic Gate Supply's New Telephone Entry System**



The New AGS Residential Telephone Entry System does not require telephone lines to be run from the residence to the telephone entry

## Flat Rate Manual

### The National Locksmith.

#### Flat Rate Manual For Locksmiths

Safe Work • Car Opening • Key Cutting • Rekeying • Installations • Domestic Autos • Code Keys • Duplicate Keys • Masterkey Systems • Conversions • Key-In-Knob Locksets • Imported Autos • Lockouts • Safe Work • Car Opening • Key Cutting • Rekeying • Installations • Domestic Autos • Code Keys • Duplicate Keys • Masterkey Systems • Conversions • Key-In-Knob Locksets • Imported Autos • Lockouts • Safe Work • Car Opening • Key Cutting • Rekeying • Installations • Domestic Autos • Code Keys • Duplicate Keys • Masterkey Systems • Conversions • Key-In-Knob Locksets • Imported Autos • Lockouts • Safe Work • Car Opening • Key Cutting • Rekeying • Installations • Domestic Autos • Code Keys • Duplicate Keys • Masterkey Systems

By Janice C. Paine, CPL

Now you can easily "Price for Profit!"

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#FRM - 1



system. This reduces installation labor time and eliminates the possibility of having poor sound quality due to a deteriorated or damaged telephone line. The AGS telephone system requires only a single pair of audio wires from the house to the gate and is very simple to install. In fact, this system is absolutely 'plug-and-play.' No set up programming is required to begin using the system.

The new telephone entry system is available in two versions, the TE 001C and TE 001K. Neither model will require a dedicated phone line. Both have "call waiting" ability and can also accept a second entry station for another entry gate or door if needed.

### **Sargent & Greenleaf's New Time Commander II®**

Sargent & Greenleaf's new Time Commander II® (TC II), when used exclusively with the company's Comptronic™ Electronic Safe Locks, provides

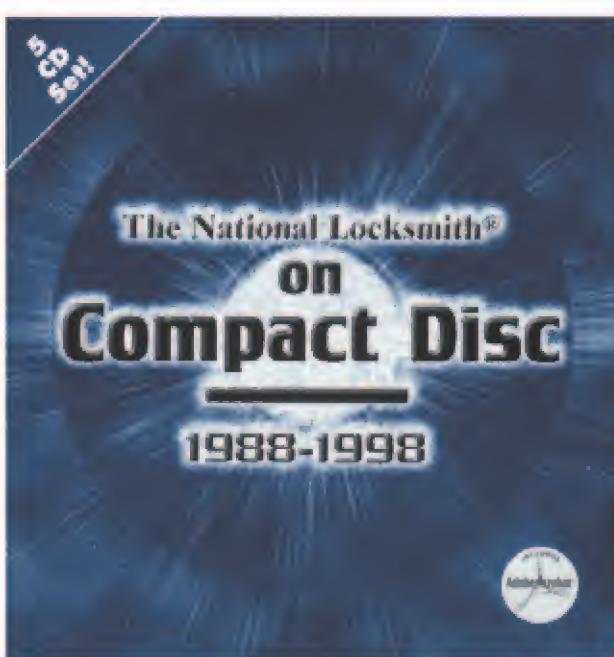


time lock capability that significantly increases the security of safes and offers added protection against robbery and internal theft.

A programmable, electronic time lock module, the TC II is ideal for high cash transaction business operations. By controlling electronic safe locks to open only during pre-set, specified time periods, the TC II is particularly effective at protecting safes, cash and employees in retail stores where attendants may work alone or

where stores are open 24 hours a day.

Using easy-touch buttons, users can schedule multiple open/close periods in any 24-hour time frame and, if desired, copy the schedule quickly to other days. This assures access to cash only during limited, pre-determined and approved times. In case of emergencies or threatening situations, the "short close" feature immediately activates a close without interfering with previously programmed open/close cycles. **TNL**



## **TNL on CD**

Our Compact Disc set features 11 years of the locksmith's favorite magazine. Thousands upon thousands of pages of indexed and searchable text!

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#TNL - CD1

# LOCK Hardware Cross-Reference Software



by Billy B. Edwards Jr.

In the October 1998 issue of The National Locksmith, we took the Lock Hardware Cross-Reference Software product for a Test Drive. It did so well that we decided to give it a cross-country run and we weren't disappointed this time either.

### ***The Lock Hardware Cross-reference:***

Simply put, the Lock Hardware Cross-Reference software program is a product that allows the user to choose a product such as a lock, exit device or key blank, find a comparable manufacturers products and corresponding specifications. Considering the ANSI and the old Government specifications, all products are listed even if they do not have a comparative product from another manufacturer nor an ANSI number. The screen displays a short description along with the function. Both ANSI and Government Numbers, Grades and the type of cylinder each product is required to operate it. Sizes are noted as applicable such as lengths of cylinders and cabinet locks. Additional information on the Security Grades such as UL437 appear with each product that is listed. Additionally, the comparative detail on any product can be printed. The current edition is broken down into categories:

### ***Locks:***

Under the locks category, mortise, deadlocks, cylindrical and bored, storefront, auxiliary, padlocks, cabinet and drawer locks are included. Also listed are strike plates and electric strikes. Knobs, levers and escutcheons are included as well.

### ***Keyways: (Key Markings)***

Most of the manufacturers' original keys do not have stock numbers that are on the aftermarket key blanks. However, many of them do have something to identify them. They have letters such as LA, R or GA or as an example, A1A53351 on a Corbin key. The 53351 is the biting, the A1A is the keyway. When you search for the A1A in the program, all the information for the keyway is identified. Included are the lock manufacturer and all key blanks, both original and after-market will be displayed.

### ***Key Blanks:***

This comparison is unlike any previously or currently published cross-reference. It is based on the original manufacturer's product and crossed over the after-market products. Over 4,000 commercial and institutional keys are listed along with several of the more popular residential grade locks. A vast number of these keys do not show after-market products. If a person is looking to minimize duplication of standard keys, they can easily check from the original factory number to see if an after-market key was produced.

### ***Cylinders:***

Mortise, Rim, High Security, and replacement cylinders are included. A complete interchangeable and removable core comparison section lists all the manufacturers that are in the business.

### ***Panic Exit Devices:***

Panic exit devices, trim, alarmed devices, and alarm, mullions, coordinators and auxiliary items are shown.

### ***Butts And Hinges:***

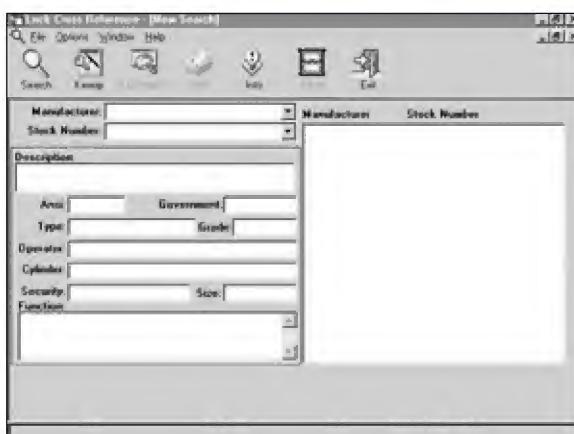
All types of hinges including butt hinges, piano or continuous and specialty hinges are included. Full descriptions are applied to each product shown.

### ***The Computer Program:***

The Lock Hardware Cross-Reference operates on any IBM type 486/75 or faster computer, with a minimum requirement of Ram (16 recommended) and 15 MB of free disk space. It operates in Windows 3.1, NT, 95 and 98. A network administrator will know how to install it in a network system.

This program can run on a 486 or better PC under Windows 3.1, Win95, Win98 or Windows NT with 8 megabytes of RAM at 75 megahertz. The manufacturer recommends 16 megabytes of RAM for optimum use, but it runs well with only 8 and you can use it on a network.

The owner is licensed to place the program on all machines in a single location and the laptops belonging to the firm for outside use.

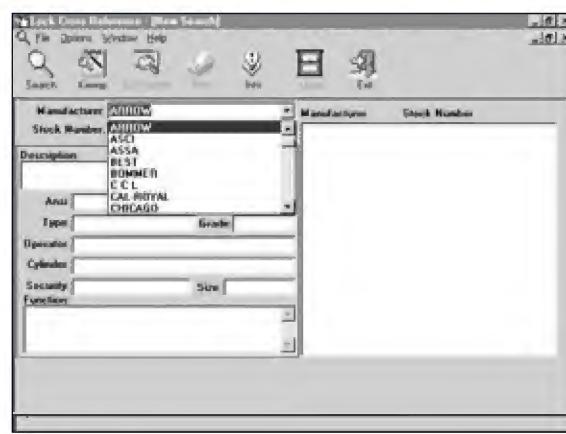


**1. The program starts you out with a search screen and there are pull down lists that you can use to select from or you can just type into the box. The list includes lockset part numbers, trim designs, cylinder part numbers and even original key blank numbers.**

**A**s new releases are issued, additional products and product lines are added. Updates occur approximately every 12 to 18 months and are available at special renewal pricing to all registered users.

#### **Operation:**

The program is very user friendly.



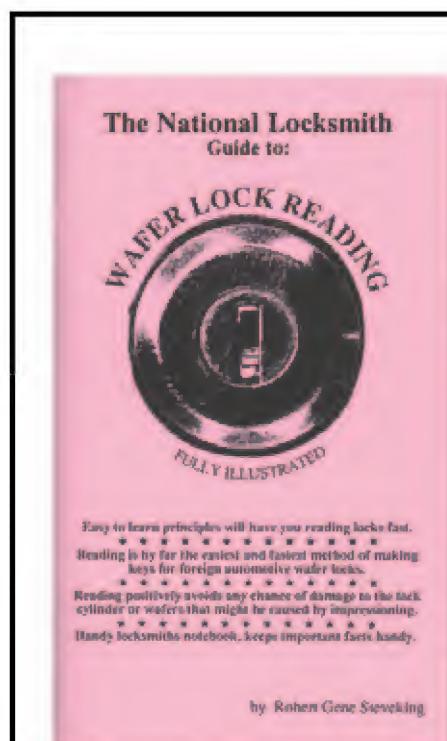
**2. The next box on the form lists part numbers, including lockset part numbers, trim designs, cylinder part numbers and even original key blank numbers for the selected manufacturer.**

#### **Search Screen:**

The program starts you out with a search screen (see illustration 1), and there are pull down lists that you can use to select from or you can just type into the box. I counted ninety-one manufacturers to choose from in this list from Abloy to Zero.

#### **Manufacturer:**

The next box on the form lists part numbers for the selected manufacturer. (See illustration 2.)



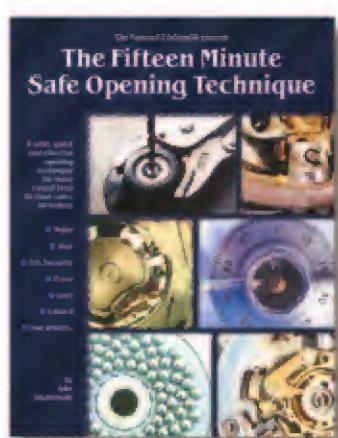
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#WLR - 1

## **Wafer Lock Reading**

**Easy to learn.  
No Codes needed.**

## **15 Minute Safe Opening**

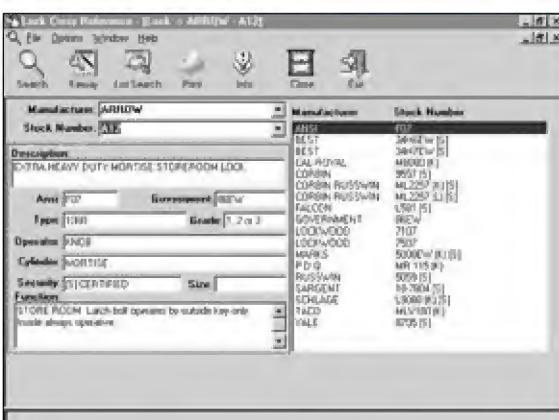


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#JJ - 1

**3. Once you have made your selection from the part number listing you can find out about the product in the description section directly below.**



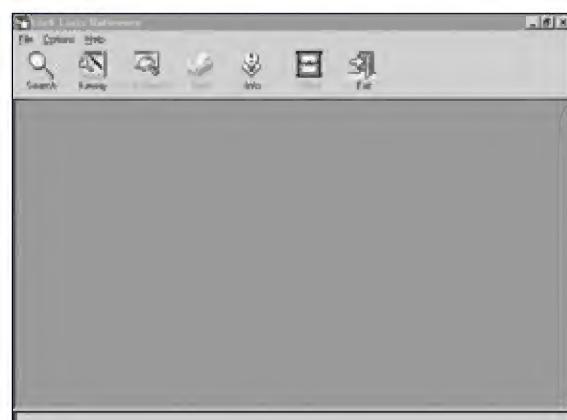
The list is impressive. It includes lockset part numbers, trim designs, cylinder part numbers and even original key blank numbers. The potential is amazing, for not only does it list all of these things, but also it explains them. Once you have made your selection from the part number listing you can find out about the product in the description section directly below. (See illustration 3.)

**F**irst you will see a general description of what the item is and below that the ANSI specification number, the Government specification number, the

lock type or series, the grade specification it complies with, the type of handle - knob or lever, the installation method used for it, a security rating, any specific size specifications and finally a description of the function selected.

#### **More Information:**

Checking the right side of the screen gives you some more invaluable information, a listing of other part numbers and manufacturers that are an equivalent. If you double click on any of the items in the window on the



**4. If there wasn't a previous item, you will end up with a blank screen in the form area as shown.**

right of the screen, it replaces the brand and part number that was originally searched for on the left side. When you are finished with the information in the window, click on the 'close' icon in the menu bar and the information will be replaced with the last item you searched. This history memory is a nice option. If there wasn't a previous item, you will end up with a blank screen in the form area as shown. (See illustration 4.)

To start a new search just click on the search icon and a blank form will

## Auto Lock Service

Features photographs, illustrations, and instructions to service and repair various makes of foreign and domestic cars.



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**The National Locksmith**

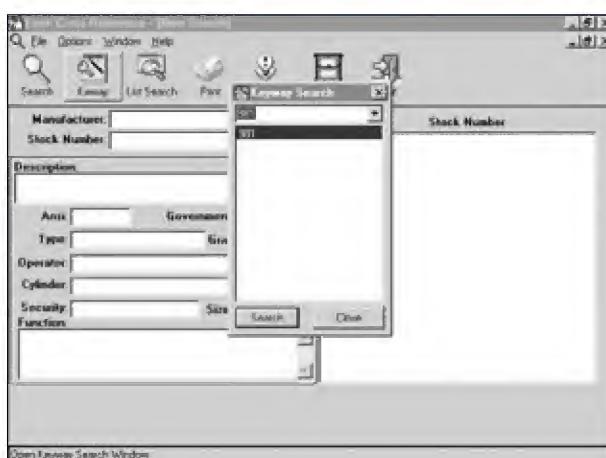
Auto  
Lock  
Service

Covers opening and service techniques.

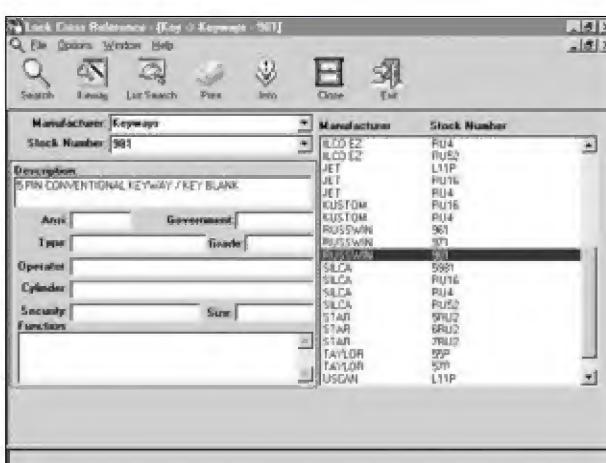
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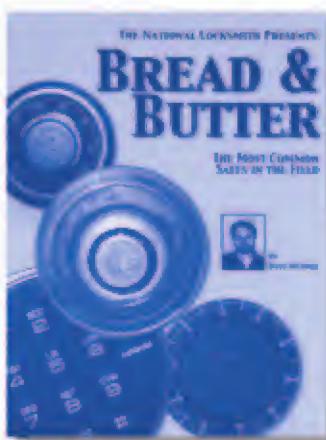
5. I selected keyway 981, which I know as an older Russwin keyway. Click on the search button in the pop-up window to get a listing of all the manufacturers who offer an equivalent key blank.



6. This particular list started at Cole RU16/RU4 and went to USCAN RU4 for a total of 39 possibilities.



# Bread & Butter



Now here is  
one amazing  
value!

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#BB - 01

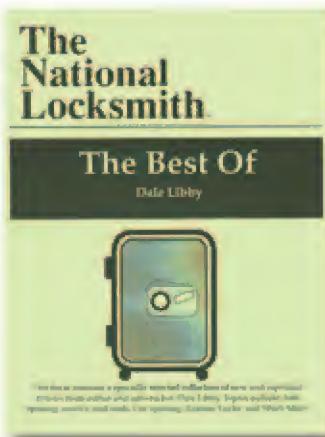
be presented. If you don't like icons on your screen, you can remove the icon toolbar via the Options menu at the top of the screen. I like the toolbar icons because they let me do things with just one click instead of two, one click to pull down the menu and one more to select the program function I want.

**Keyway:**

**A**fter you open a search screen, you can do a special search for keyways/key blanks by using the second icon labeled 'Keyway'. This will present you with a pop-up window. In the pop-up window there is a pull down list to select the keyway from. You can type in the first number or letter of the keyway to get to the right range in the listing of over 1100 original manufacturer blank numbers and then scroll to the particular one you want.

As you can see in *illustration 5*, I selected keyway 981, which I know as an older Russwin keyway. Then click on the search button in the pop-up window to get a listing of all the manufacturers who offer an equivalent key blank. This particular

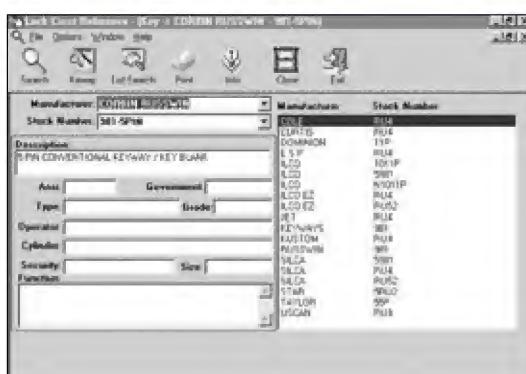
# The Best of Dale Libby



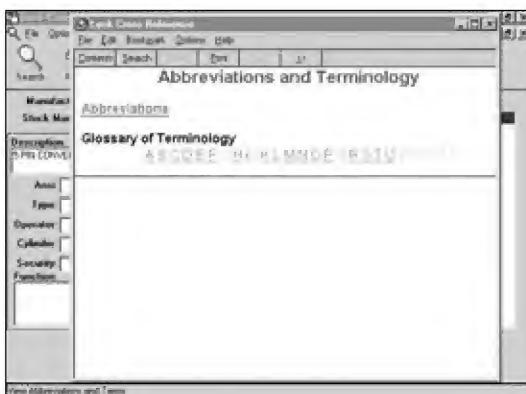
This book includes the best articles written by Dale Libby over the course of many years, going back well over ten years! Now you can have this terrific collection of safe opening articles, automotive articles, and more.

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#DALE



7. I selected Corbin-Russwin, 981-5 pin and then clicked on List Search to see what would happen and I was given a list of 19 equivalents.



8. A listing of the abbreviations used in it or you can link to an alphabetical listing of the terminology used in the program.

list started at Cole RU16/RU4 and went to USCAN RU4 for a total of 39 possibilities. The possibilities included 5, 6 and 7 pin blanks since I didn't specify the number of pins. (See illustration 6.)

### List Search:

The next icon in the toolbar is labeled 'List Search'. I selected Corbin-Russwin, 981-5 pin and then clicked on List Search to see what would happen and I was given a list of 19 equivalents. (See illustration 7.).

### Print:

The next icon is labeled 'Print' and will send whatever data is on the screen to your default printer. It prints the information to a single 8 1/2" x 11" sheet of paper to allow you to make a hard copy of any information you may have found.

### Info:

The next icon is the 'Info' icon and it will present you with

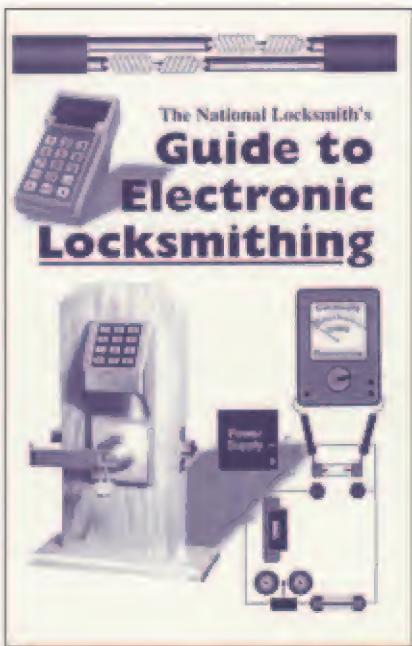
a pop-up window from the help menu. From this window you can link within the program to a listing of the abbreviations used in it or you can link to an alphabetical listing of the terminology used in the program. (See illustration 8.)

### Close/Exit:

The last two icons are 'Close' and 'Exit'. Close will close the current search window and Exit will get you back to your Windows desktop.

Laurie Simon has been making a paper based Lock Hardware Cross-Reference for many years and I have always found it useful. This new software version is a fantastic leap forward and much more versatile. This is one more thing to add to the list of things I won't be able to live without.

If you want to try the Lock Hardware Cross-Reference program for yourself, there is a demo available for a \$5.00 shipping fee. Contact: *Dalax Inc., 1314 Huntington Drive, Richardson, TX 75080-2809. Phone: (972) 234-8009, 800-960-5397 Fax: (972) 234-0339, E-mail: simon.says@airmail.net. Circle 416 on Rapid Reply.* **TNL**



## Electronic Locksmithing

Everyone knows there's big money in selling, installing and servicing electronic security such as mag locks, electronic strikes, and simple access control.

[CLICK HERE TO LEARN MORE](#)



# ARROW™ Lever Lock



**1. Arrow Lock's new Q series heavy-duty Grade 1 lever lock**



**2. The Q series features a patented flexible adapter that allows for universal thru-bolting.**



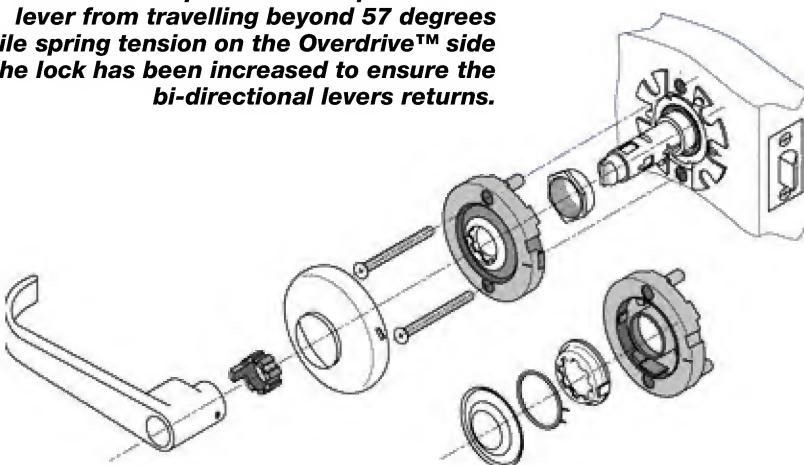
**3. An eight-sided nickel-steel spline-like mechanism offers the ability to remove and rotate the screw posts from the rose to match existing holes in the door.**

**T**here is something new and exciting happening at Arrow Lock Company. A new heavy-duty Grade 1 lever lock is being introduced. (See photograph 1.) So what's exciting about a new lever lock you ask? Well, the Arrow Q series is a bit different from what you have come to expect of a lever lock.

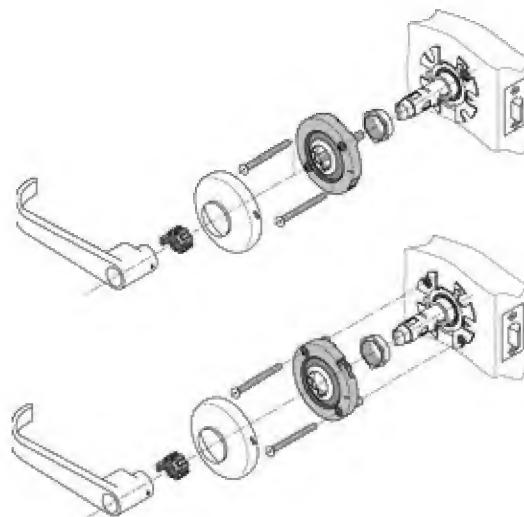
At first glance, one could easily mistake the Arrow Q series for the old standby heavy duty H series lever lock, but let's take a closer look. The Q Series looks like a new breed of architectural hardware that seems to have set a criteria that didn't exist when all there was to choose from was a Ball knob or a Tulip. It has a clean, "no-gimmick" design that will appeal to the end-user and it's easy to install and maintain, having the ability to withstand "normal" abusive wear and tear. Arrow has expertly combined Grade 1 ruggedness, flexible installation and velvety smooth operation with Overdrive™ to establish the new breed criteria.

Overdrive™ is Arrow's version of the mechanism that enables locked levers to rotate freely without retracting the latch. The Q's optional mechanism has been refined and engineered to help maximize lever lock performance and minimize wear, creating a more responsive lever and virtually eliminating lever sag. Built-in stops in the rose prevent the lever from travelling beyond 57 degrees. Spring tension on the Overdrive™ side of the lock has been increased to ensure the bi-directional levers return to the horizontal position. (See

**A. Built-in stops in the rose prevent the lever from travelling beyond 57 degrees while spring tension on the Overdrive™ side of the lock has been increased to ensure the bi-directional levers returns.**



**B. The flex-adapter does not affect handing and engages directly with the rose insert springs to further prevent lever-sag.**



*illustration A.)* While there's really nothing new about freewheeling levers, what is new and unique about the Q series is the patented flexible adapter that allows for universal thru-bolting. (See photograph 2.)

Universal thru-bolting means that the Arrow Q can replace existing levers, without having to drill new holes, no matter what door prep or through-bolt configuration there is. An eight-sided nickel-steel spline-like mechanism (see photograph 3) gives the installer the ability to remove and rotate the screw posts from the rose to match existing holes in the door for retrofit applications. In other applications, it lets you rotate them for a desired prep to accommodate wiring or other installation demands. The flex-adapter does not affect handing and engages directly with the rose insert springs to further prevent lever-sag. (See illustration B.)

The rose that houses all these

extras is a bit more compact, offering an attractive balance and continuity to the overall design. Simply put, the smaller diameter rose just looks better.

**T**he introduction of the Q Series gives a whole new look to Arrow's cylindrical lever line. Besides its unique attributes, the Q has all the standard features and functions you'd expect in a Grade 1 lever backed by a limited three year warranty. All Q series locks are ADA compliant, UL and cUL listed, and conform to or exceed the requirements of ANSI/BHMA A156.2, Series 4000, Grade 1.

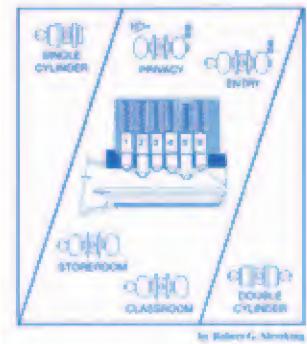
Architectural finishes, keying choices and cylinder options added with Arrow's long history of producing high quality security hardware make the Q a product worth looking into.

*For more information call (800) 233-0478, or circle 473 on Rapid Reply. **TNL***

## Door Lock Encyclopedia

**The National Locksmith® Guide:**

**'Door Lock Encyclopedia'**



The ability to remove a lock from a door, disassemble the mechanism, and remove the lock cylinder for service is not always a simple straight-forward task.

**CLICK HERE TO LEARN MORE**



#DLE

# Schwab 5000



by  
**Dale Libby, CMS**

To many people, anything with a combination dial on it is a safe. I have given up trying to educate them in proper terminology. It does not do any good anyway. The more I do safe and money chest work, the more silent I am, except in the pricing and payment areas. They hire me to do a job, and I do it. I will not listen if they tell me how a friend of theirs said to open the safe. I am the expert. Just as you are the expert on your jobs.

I have a history with the present hanging drawer vertical file cabinet from Schwab. This is a fireproof file, #5000, with two large legal sized vertical file drawers. The unit is quite heavy and well made.

About seven months ago, the car dealership who bought the unit asked me how much I would charge to change the combination. After quoting the price, they were shocked, and said that they would do it themselves. Nine months later, I get a frantic call that the cabinet has been locked for the past eight months with an unknown combination. I quoted triple the price for a combination change. They needed it open right away. When I got to the dealership, they explained the fiasco.

It seems that the woman in charge of changing the combination was distracted, and then inadvertently, someone came along and pushed the door shut with the change key inserted in the lock, but NOT turned.

*Photograph 1*, shows the standard LaGard lock set-up issued by Schwab on their fire proof file cabinets. The lock is mounted VD and when turning pressure was applied to the handle, the lock drop-in area indicated quite well.

The factory set combination on this lock was 50-25-50, right to stop. This combination gave no better readings than a random combination. The woman in charge of changing the combination had somehow changed it. I suspect that when the key did not turn, she used force on the dial and the numbers 'slipped'. Whatever was the case, the unit was locked, and they wanted me to drill it open.

In *photograph 2*, you can see the standard LaGard dial with the black plastic cap removed. The slots at 25 and 75 are for the plastic clips that hold the black plastic cover on. The hole at 6:00 o'clock is for an optional



**1. Combination lock and handle of Schwab 5000 fire resistant file cabinet. Pulling out handle puts pressure on bolt making readings easier.**



**2. Standard LaGard dial with plastic insert removed. Tabs are located at 9:00 and 3:00 o'clock.**



**3. To prevent dial cover from breaking, remove the four screws that hold on the dial ring through the key cylinder hole in the dial.**

cylinder to secure the dial in a locked stationary position.

Before drilling about 1/2-inch of the dial spindle off with a 5/16-inch drill, I removed the four dial ring retaining screws through the cut out for the wafer lock cylinder. (See photograph 3.) This was to 'save' the

dial ring and spy proof cover and use again.

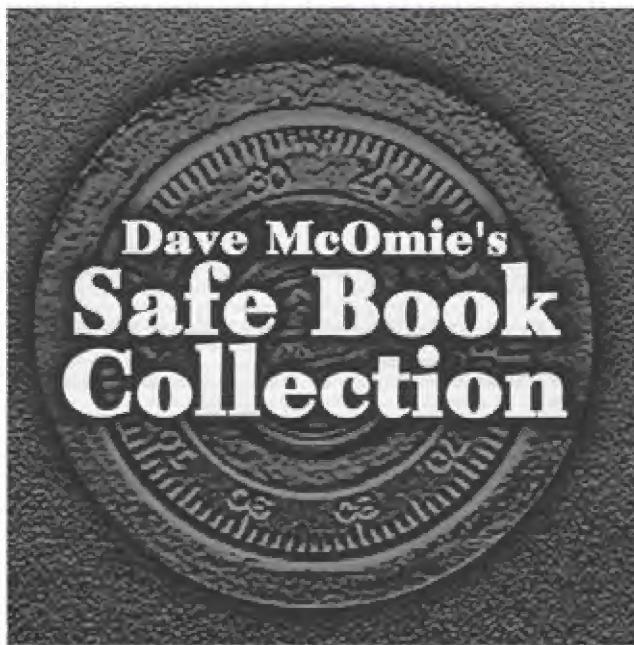
With LaGard dials and others that have a tapered spindle inserted from the top of the dial, it is necessary to relieve the tapered end of the spindle. This is accomplished by drilling about 1/2-inch of spindle off from the

outside with a 5/16-inch drill. Once the spindle is properly relieved, a dial puller is used.

The puller attaches to the dial ring and yanks off the dial. It also puts a lot of pressure on the wheel pack post on S&G type locks, LaGard locks, and any others that have a rear wheel drive arrangement. With Mosler, pulling with a slam hammer puller may deform the lock case, because the Mosler lock is a front drive cam type lock, where others are rear drive cam types.

**B**efore pulling the dial, drill into the center of the dial to expose the end of spindle. *Photograph 4*, shows the puller from TimeMasters that I like to use.

I center the puller by putting it in the middle of the dial and working the screw in and out by hand. It only takes a few minutes to properly center the puller over your drilled hole. Hold the handle and start cranking the puller. Many times the dial will come right off, if you have relieved the spindle correctly. I did not, and the dial spindle broke right off even with the surface of the safe.



**Dave McOmie  
Safe Book  
Collection  
on CD**

This CD contains  
every book Dave  
has ever published.

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#DMCD - 1



4. Attaching the self-centering dial puller from TimeMasters. Drilled off 1/2-inch of spindle with a 5/16-inch drill bit first.

Luckily I have a deep recessed dial ring that will lock on to this 'stub' of the dial ring. Many times the spindle on a LaGard will break even with the surface of the safe no matter how careful you are.

Next, I screwed on a hardened template that came from the Probe-A-Scope I have had for many years. I did not need the drill press attachment for I just wanted a location for the lever. It is at about 73 on the dial ring. (See photograph 5.)

Once I made the hole with my battery-powered drill, it was easy to dial the gates right under the fence, and open the unit. In photograph 6, the combination lock is in the open position.



5. Hardened template to locate drop-in position which is approximately 23 on a VD lock. No hard plate!

## Dave McOmie NSO & Article Collection on CD



This CD contains every NSO newsletter and McOmie File Dave has ever published.

[CLICK HERE TO LEARN MORE](#)

#DMCD - 2





**6. LaGard lock mounted VD, with an extension bolt with a blocker bar bolted to the end of the lock bolt.**

This unit has an extended, tapped, and drilled, combination lock bolt. The locking bar attaches to the end of the bolt and blocks the handle from being raised when locked. It would be a good idea to have another LaGard as well as an S&G lock in stock, however, if the LaGard lock was damaged, another LaGard lock

can be used and the combination bolts switched.

**D**rilling holes for this extender bolt can be a real pain in the field. It can be done however. I did not have a LaGard dial on my truck that day, so I used a trusty S&G dial and ring. I had to slightly file the spline cut deeper due to the configuration of

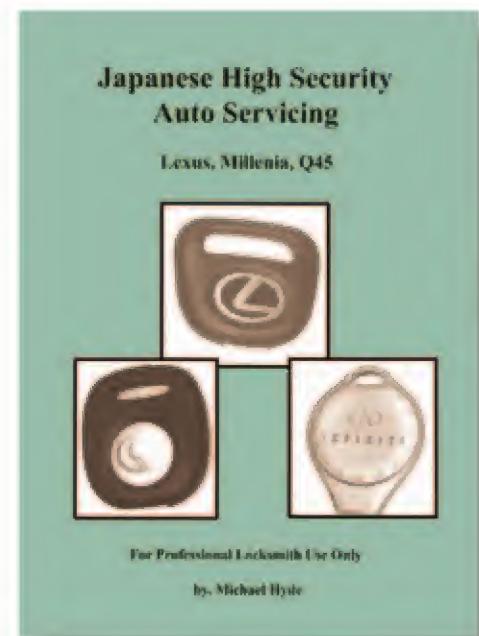


**7. Repaired unit with a S&G dial. Spline slot was adjusted for LaGard/S&G spline key.**

the LaGard drive cam and the S&G original setup. (See photograph 7.)

When I was leaving (about 30 minutes later) I asked if they were going to again try to change the combination themselves. It took them only a few seconds to tell me that the owner of the dealership said they were never to touch the combination again.

Open and Prosper! **TNL**



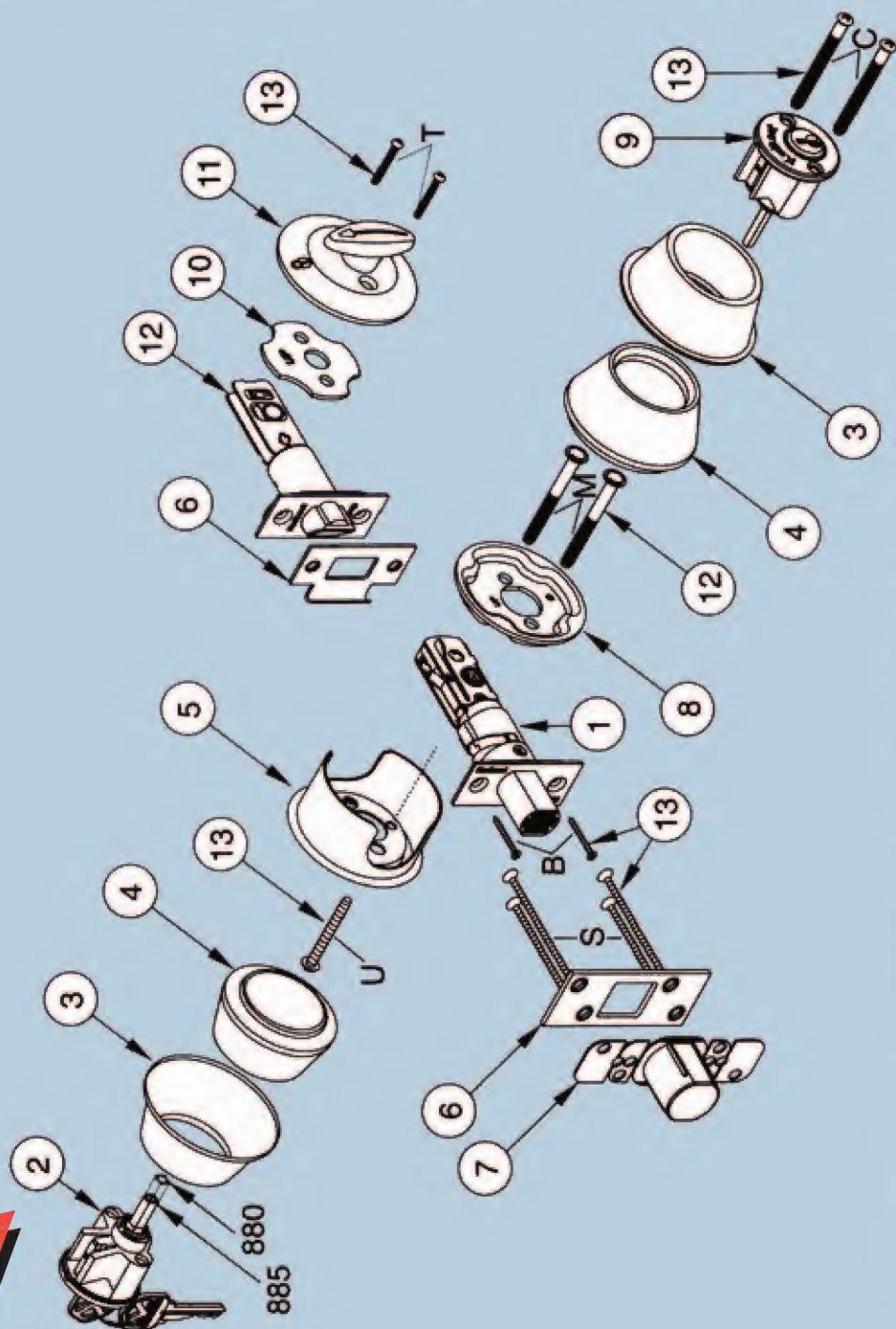
## Japanese High Security

Some of the most profitable cars are also the trickiest to work on.

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#JAP - 1

## Kwikset 885 Deadbolt



## Kwikset 885 Deadbolt



**① Adjustable Backset Deadbolts (Specify finish)**

Regular 880, 885			UL 587, 880UL, 885UL
Front	6084-01	4513-01	
1"	6095-01	4525-01	
1-1/8"			
1" RC	6085-01	4523-01	
Drive-in	4504-01	n/a	

### Other Parts

Item	Part #	Description
②		Cylinder, outside
	89081 fin	587
	83206 fin	588, 880, 880UL
	89080 fin	589, 885, 885UL
③	83204 fin	Cylinder guard cover
④	83203	Cylinder guard
⑤		Bolt shield
83200	880, 885	
88380	587, 880UL, 885UL	
⑥ Strike (see page 82 for options)		
	83222 fin	Maximum security std. for 587, 880, 885
	83028 fin	T std. for 588, 589
	85278 fin	Steel jamb std. for 589, 880UL, 885UL
⑦	81640	Strike box
⑧		Reinforcing plate
	83201	588, 589, 880, 885
	88378	587, 880UL, 885UL
⑨		Cylinder, inside
	80200 fin	587
	89079 fin	589, 885
	83209 fin	589, 885 thick door
⑩	83202	Back Plate, 588, 880, 880UL
⑪	83273 fin	Thumbturn assy. 588, 880, 880UL
⑫	83277	2-3/8" backset deadlatch, 588, 589
⑬ Screw Pack (see page 84 for details)		
	88444 fin	588, 880: B, D, SS, T
		588, 880 thick door: M and tailpiece
	84462	Standard door: M
	86017 fin	587, 589, 885: B, C (reg. & 1-way), SS
	84221	587, 589, 885 thick door: M and tailpieces
	86356 fin	587, 880, 885 max. security strike: S 3"
	83265 fin	Steel jamb (std. on UL locks): SS combination type
	88379 fin	587, 880UL, 885UL: B, S, U

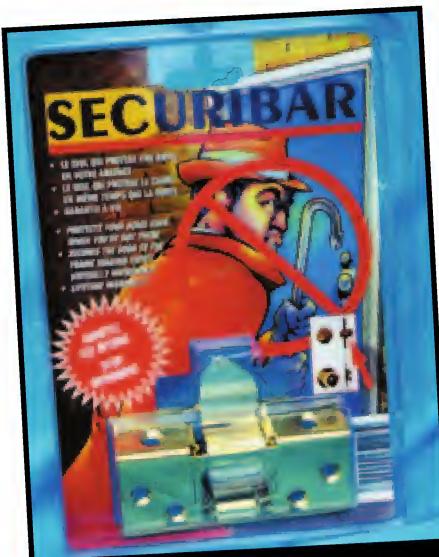
# BEGINNER'S CORNER

## Securibar Door Strike



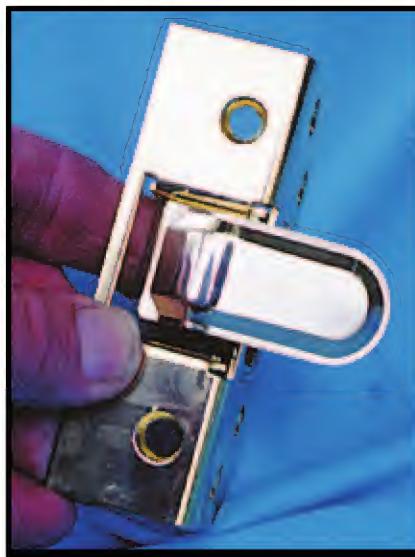
by  
**Jim  
 Langston**

I would like to tell everyone about a product new to the market place. (See photograph 1.) The Securibar is a strike made for any one-inch deadbolt lock. With this strike it makes any door almost impossible to be kicked in.



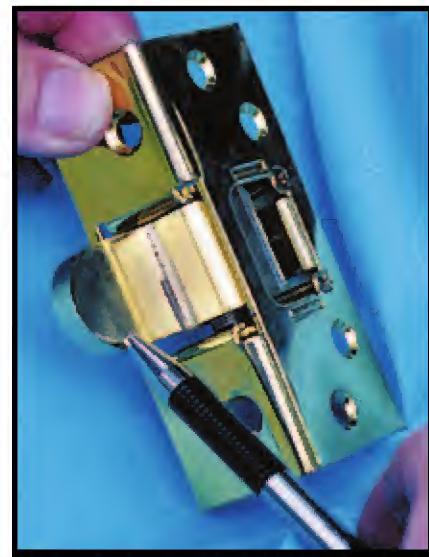
1. The Securibar is a strike made for any one-inch deadbolt lock.

When the deadbolt is extended, it pushes a tab on the Securibar around the door (see photograph 2) causing the Securibar tab to lock over the door edge. (See illustration A.) When the deadbolt is retracted the tab is spring

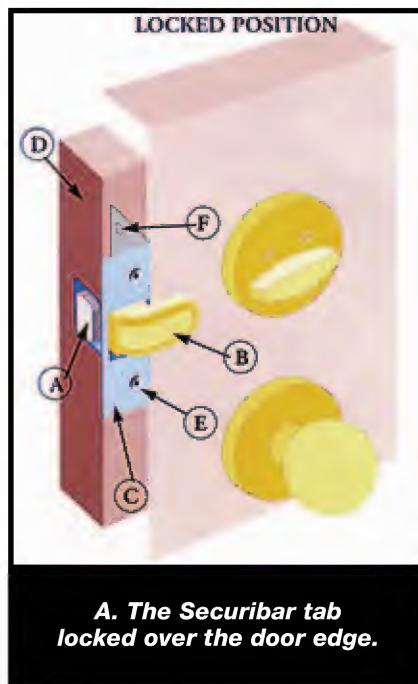


2. When the deadbolt is extended, it pushes a tab on the Securibar around the door.

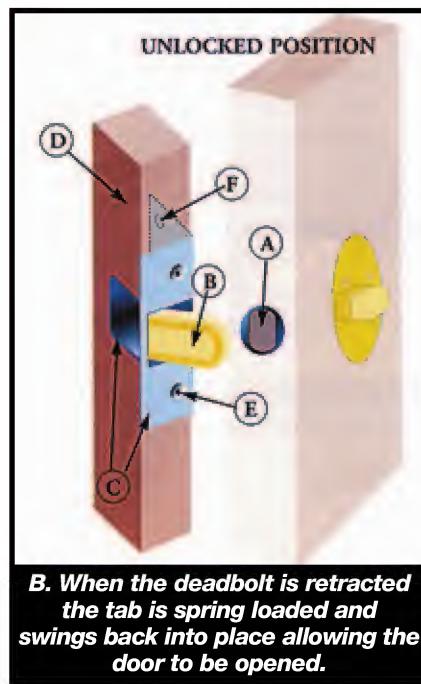
loaded and swings back into place automatically (see photograph 3) allowing the door to be opened. (See illustration B.) The ordinary use of the deadbolt is what activates the Securibar, no other procedures are necessary.



3. When the deadbolt is retracted the tab is spring loaded and swings back into place automatically.



A. The Securibar tab locked over the door edge.



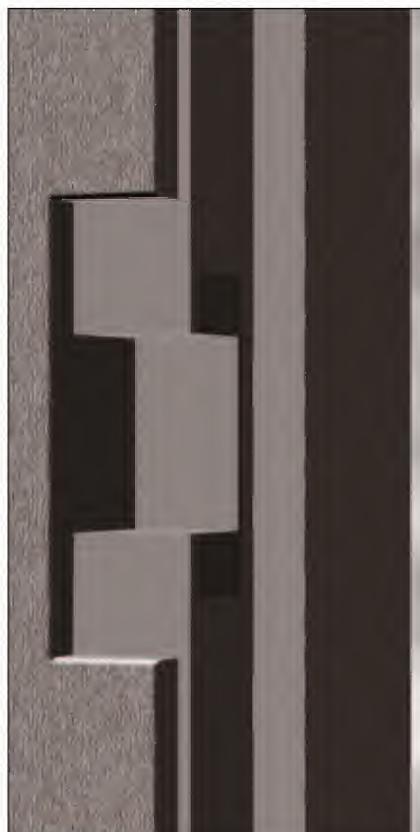
B. When the deadbolt is retracted the tab is spring loaded and swings back into place allowing the door to be opened.



4. A standard deadbolt and knoblock arrangement commonly found on most residential doors.



**C. Measure about one inch back from the jamb and draw a cut line.**



**D. If you do not have a router, a chisel can be used to finish the job, however it will prove to be much more work and the end result may not be as good.**

The Securibar is a great new product to go along with any one-inch deadbolt. A short video about the product is also available. It shows a door without the Securibar and how easy the door can be kicked in; but with the Securibar installed it could not be kicked in. The door can withstand an attack with a 3-1/2 foot crow bar for several minutes, destroying the door before breaking the Securibar.

#### **Installation**

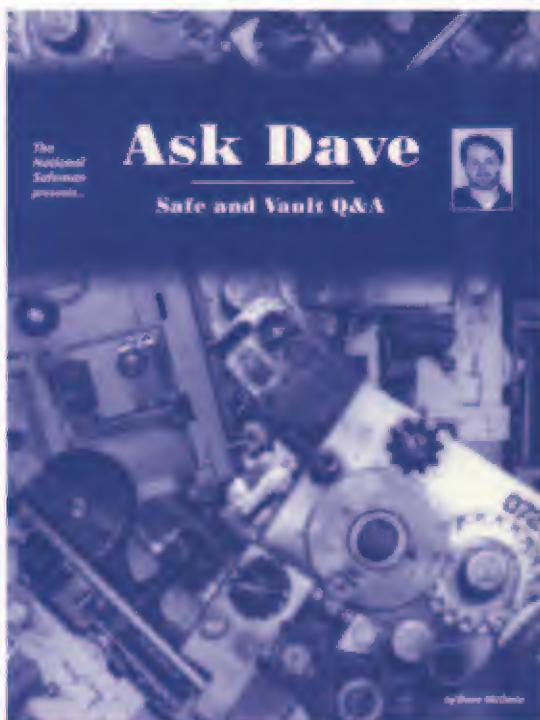
The installation of the Securibar is very simple. It should not take more than fifteen minutes to install. In

*photograph 4*, you can see a standard deadbolt and knoblock arrangement commonly found on most residential doors. You will need to measure about one inch back from the jamb and draw a cut line. (*See illustration C.*) A template is supplied with the lock.

At this point it is best to use a router to cut the rest of the frame for a clean look. If you do not have a router, a chisel can be used to finish the job, however it will prove to be much more work and the end result may not be as good. (*See illustration D.*)

With the frame cut the Securibar can now be installed. (*See photograph*

# **Ask Dave**



You asked. He answered. This is safe and vault Q&A with an attitude.

**CLICK HERE TO LEARN MORE**

#AD - 1



# Wafer Lock Reading

The National Locksmith  
 Guide to:



Easy to learn principles will have your reading locks fast.  
 Reading is by far the easiest and easiest method of making keys for foreign perimeter wafer locks.  
 Reading positively avoids any chance of damage to the lock cylinder or wafer that might be caused by impressioning.  
 Simply Locksmiths notebook, keeps important facts handy.

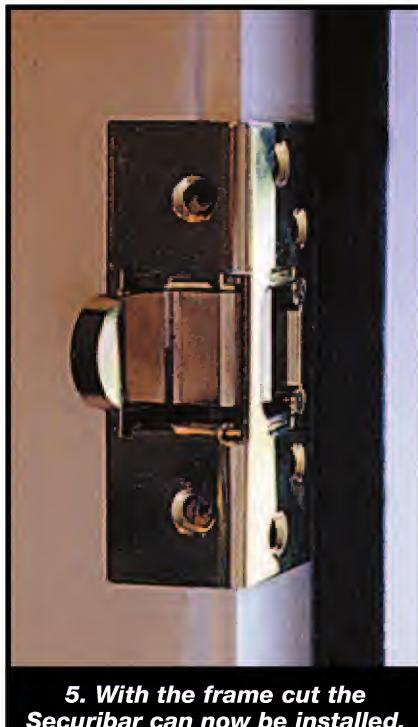
By Robert Gene Sieveking

Easy to learn.  
 No Codes needed.

[CLICK HERE TO LEARN MORE](#)



#WLR - 1



5. With the frame cut the Securibar can now be installed.



6. With the Securibar in place, install the six security screws supplied.



7. The installation is complete.

5.) With the Securibar in place, install the six security screws supplied. (See photograph 6.) The installation is complete. (See photograph 7.) The Securibar comes with six 3-1/2" security screws with square heads on them. Two screws go in the front of the strike; four go inside the door jamb.

## Adjustments

If the door has too much end-play there are two screws on the Securibar that can be adjusted to eliminate excess door movement. (See photograph 8.) Simply screw the two screws a little at a time, until the play (looseness) is out of the door. The two screws pull a tab outward inside the Securibar to adjust for a snug fit.

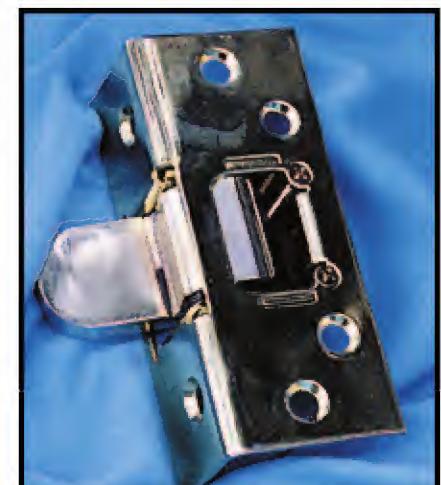
## Conclusion

I have been in the locksmith industry for thirty-four years and this is one of the best security strikes I have ever seen. The principal is simple and effective.

For more information call: Daniel Parent at: (514) 984-6997 or fax: (514) 366-3095. Or circle number 475 on Rapid Reply.

**Point to ponder:** The best way to get rid of an enemy is to turn him into a friend.

TNL



8. If the door has too much end-play, there are two screws on the Securibar that can be adjusted to eliminate excess door movement.

# Quick Entry UPDATE

by  
 Steve  
 Young



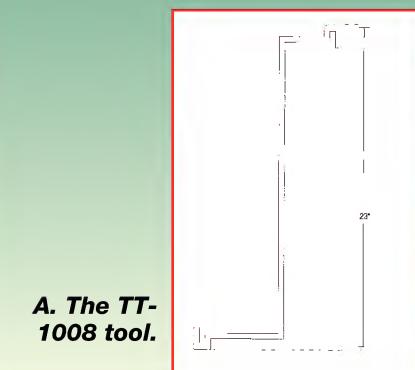
## 1999 OLDSMOBILE ALERO

The 1999 Oldsmobile Alero is offered in both two and four-door models. (See photograph 1.) The front door opening methods for both styles are different, but are very similar to each other. In addition, the four-door model can also be opened easily through the rear door.

The weather-stripping on this car fits very tightly at the base of the window. The inner portion of the weather-stripping is tightly sandwiched between the inner door skin and the door panel. This arrangement makes for a very tight fit between the window glass and the inside weather-stripping. Because of the tight fit, I didn't feel that it was safe to use any of the "under the window" style tools to unlock this vehicle. The very tight fit of the weather-stripping also makes it difficult to see into the door cavity with an inspection light. Fortunately, an inspection light is not needed to unlock this car.

These new cars also use the GM 10-cut lock system with an in-dash ignition lock that is identical to those used on the Oldsmobile Cutlass and Chevrolet Malibu. (See photograph 2.) If you have a working key for the car, the ignition lock can be removed easily once the trim over the face of the lock has been removed. If you have no key or if the lock has failed, the radio will probably have to be removed to remove the entire lock and switch assembly.

Because you can obtain eight of the ten cuts on the key from the door and trunk or the door and glove compartment locks, fitting a key to this car is relatively easy. The cuts for the door lock (3 - 9) can be obtained by impression, disassembly of the lock, try-





**6. On the front door of the four-door model the tool is inserted just forward of the outside handle.**



**7. Inside the four-door model door with the tool gripping the linkage.**



**9. Inside the rear door of the four-door model with the tool gripping the linkage.**



**8. The rear door of the four-door Alero can be unlocked with the TT-1001 tool.**



**10. Moving the linkage rod forward will unlock the car.**

out keys or with a reader such as the EZ-Reader. The tenth cut can be obtained in the same way or by progression. Once you have a key that operates both the door and the trunk, it is a simple matter to obtain the first two cuts of the key by progression in the ignition lock.

The door lock is mounted into an oval shaped modular style handle and is held in place by a wire clip. The door locks use plate-tumbler locks that are very similar to Chrysler door locks. These locks have seven tumblers, three on one side of the keyway and four on the other. This makes it possible to pick these vehicles open with conventional lock picks or rocker-style picks.

The two-door models can be opened easily using the short end of the Tech-Train 1008 tool. (See illustration A.) To unlock the car, begin by wedging open the weather-stripping at the base of the window near the center of the door. (See photograph 3.) Insert two wedges far enough apart that you can freely insert the tool. Because of the tight fit of the window, you will only be able to open a small gap into the door cavity that is barely large

enough to allow insertion of the tool.

Carefully insert the short end of the TT-1008 tool into the door and lower it until the tip is about eight inches deep in the door. Rotate the tool so that the end that is inside the door is pointed toward the inside of the car. Pull up slowly until you feel the tool hook onto the lower linkage rod. Twist the tool in order to bind the linkage, then lever the linkage rod forward in order to unlock the car. (See photograph 4.)

Photograph 5, shows the linkages inside of the door as the tool grips the lower linkage rod. Notice that the linkage rods are not shielded in any way. This linkage can also be attacked at the rear of the door, but because the window fits so tightly, it is much easier to gain access near the center of the door.

The opening procedure for the front door of the four-door models is very similar to the two-door, except that the tool must be inserted closer to the rear of the door. Photograph 6, shows the wedges in the proper position to insert the tool. Again, the short end of the TT-1008 tool is used to grasp the lower linkage rod, but the tool should be

#### Quick Reference Guide

##### Vehicle:

1999 Oldsmobile Alero

##### Direction Of Turn:

Passenger side — Counter-Clockwise

##### Tool:

TT-1008 (short end) and TT-1001.

##### Lock System:

10-Cut GM. Sidebar ignition and plate-tumbler (wafer) style door locks with in-dash ignition lock.

##### Code Series: AA00 - 7T51

##### Key Blank:

Strattec 597791,

Curtis / Ilco EZ-B-91

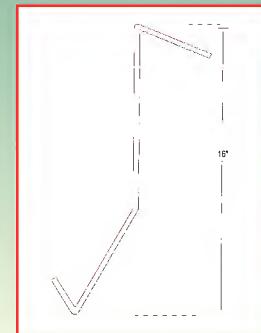
##### HPC Card: XF-215 (CW-1011)

##### Curtis:

Cam - GM-6; Carriage - GM-6A.

##### Bitting:

Ignition 1 - 9; Door 3 - 9;  
Trunk 4 - 10; Glove Box 7 - 10.



**B. The TT-1001 tool.**

inserted just forward of the outside door handle. The linkage rods are also slightly deeper in the door, so you will have to lower the tool ten to twelve inches into the door before you rotate the tool. (See photograph 7.)

An alternate method for unlocking the four-door model is to open it through the rear door. In this case, we will be using the Tech-Train 1001 tool (see illustration B) to attack the linkage because the rod is almost directly in line with the window. Begin by wedging open the main window of the rear door about four inches forward of the outside door handle. (See photograph 8.) Carefully insert the hooked end of the tool into the door with the hook pointed toward the front of the car. Lower the tool about six inches into the door and then rotate the tip of the tool toward the inside of the car. Next, pull up on the tool until it stops. At that point it will be hooked around the inside lock control linkage rod. (See photograph 9.) Twist the handle of the tool to bind the linkage and then lever the linkage rod forward to unlock the car. (See photograph 10.)

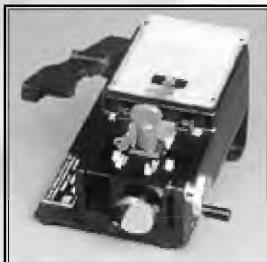
TNL

# TECHNITIPS

# YEAR-END PRIZES



**Grand Prize**  
 Silca Bravo Duplicator



**1st Prize**  
 HPC's 1200PCH  
 Punch Machine



**2nd Prize**  
 Mas Hamilton's Auditcon  
 2100 & Certification Class



**3rd Prize**  
 Curtis 2100 Duplicator



**4th Prize**  
 SDC Magnetic Lock, Keypad  
 and Exit Switch



**5th Prize**  
 LaGard "Smart  
 Guard"®



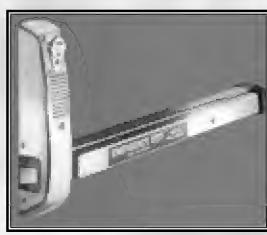
**6th Prize**  
 \$500 in All Lock Products



**7th Prize**  
 \$500 in ASP  
 Auto Locks



**8th Prize**  
 \$500 in Strattec Auto  
 Products



**9th Prize**  
 Arrow Exit Device and  
 Mounting Kit



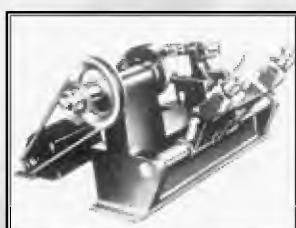
**10th Prize**  
 DeWalt Cordless Drill



**11th Prize**  
 Detex ECL-8010W  
 Wetlock®



**12th Prize**  
 Securitron DK-26 Touchpad  
 and CPU Board for  
 Magnetic Lock



**13th Prize**  
 Foley-Belsaw 200  
 Key Machine



**14th Prize**  
 Accu-Mark™ Key  
 Stamping Machine



**15th Prize**  
 S&G 6120  
 Electronic Safe Lock

## These Prizes Awarded Each Month!

• All Lock Ford or GM Kwikit

• Aero Lock Tryout Key Set

• Strattec Racing Jacket

• HPC Pistol Pick™

• Sargent And Greenleaf

4400 Series Safe Deposit Box Lock

• A-1 Security Products

• ILCO Key Blanks (100 Blanks)

• PRO-LOK® Pk 15

Professional Lock Pick Set

• Tech Train Training Video

• Sieveking Products

Gm E-Z Wheel Puller

• Major Manufacturing Products

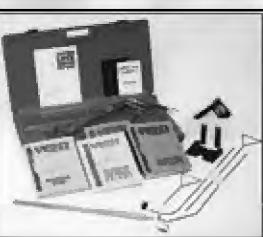
• Slide Lock's "Z" Tool Opening Set

• The Sieveking Auto Key Guide

• Jet Key Blanks (50 Blanks)

• High Tech Tools

• LaGard Combo Guard



**16th Prize**

High Tech Tools  
2500 Pro Set



**17th Prize**

Slide Lock's  
Master "Z" Tool Set



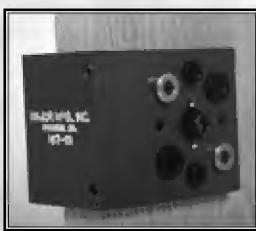
**18th Prize**

ESP Products Sampler



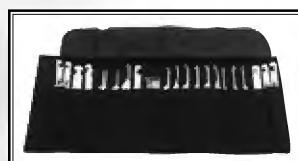
**19th Prize**

Baxter JV-1 and  
JV-5 Code Books



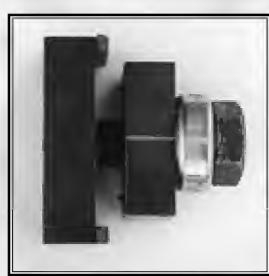
**20th Prize**

Major Manufacturing's  
HIT-111 Drill Guide



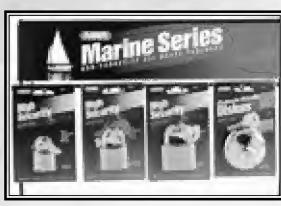
**21st Prize**

Falle Pick Set From Mark  
Bates Associates



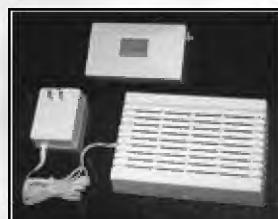
**22nd Prize**

Sieveking Products  
Squeeze Play



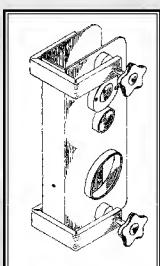
**23rd Prize**

ABUS Padlock's Marine  
Padlock Display



**24th Prize**

Rodan's AV 100 Heavy  
Duty Door Annunciator



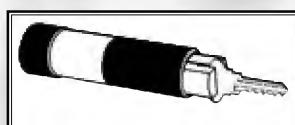
**25th Prize**

A-1 J-50  
Installation Jig



**26th Prize**

M.A.G. Engineering  
Sampler



**27th Prize**

Framon Impressioning  
Handle

**Send in your tips, and win!**

### How To Enter

Simply send in your tip about how to do any aspect of locksmithing. Certainly, you have a favorite way of doing things that you'd like to share with other locksmiths. Write your tip down and send it to:

Jake Jakubowski, Technitips Editor,  
**The National Locksmith**,  
 1533 Burgundy Parkway, Streamwood,  
 IL 60107-1861 or send your tips via  
 E-mail to: Natllock@aol.com

### Every Tip Published Wins

If your tip is published you will win one of the monthly prizes listed. At the end of the year, we choose winners from all the monthly tips published, that will be awarded one of the fabulous year end prizes. All you have to do to win is enter.

By entering, your chances are greater than ever that you will win one of the prizes listed. This is the biggest Technitips prize year ever.

Prizes are arranged according to suggested retail price value.

**Tips  
Start  
on Next  
Page!**

### The 15 Minute Safe Opening Technique

#### **28th Prize**

Book – 15 Minute  
Safe Opening  
Technique by Jake  
Jakubowski



**BWD KWIKIT WINNER:  
 Alternative  
 Storefront Opening**

A customer had locked their only set of Medeco keys in a building. Since picking the locks was not an option, I started walking around to see if there was another way to gain entry to the premises.

One door had a Jackson vertical rod panic device and was one of those doors that had a height adjusting screw on the bottom pivot hinge. I removed the cover screw and with an Allen wrench, lowered the door enough to allow the top locking dog to pass below the strike. Allowing the door to rest against the strike, I then readjusted the door upwards until the bottom bolt cleared the bottom strike hole and the door was open. The final step was to replace the door and properly adjust the pivot screw.

I have also found that on some of these doors (with the Jackson type panic bar) I can raise the door high enough to allow a long stiff wire to pass under the door, hook the bar and pull it down and open the door.

Gary Follansbee  
 Tennessee



**AERO LOCK WINNER:  
 1970's Model  
 Mercedes Keys**

The door handle on most 1970's model Mercedes are easy to remove, however not all of them have codes present. Consequently, I have found that it is easier to remove the glove box lock that has all 10 wafers in it. This lock has a metal plug in a plastic housing and the plug is secured by a metal retainer about 1/2" long.

To remove the retainer, drill a small hole in the plastic housing, beside and about midway of the retainer. Use a sharp tool to pry the retainer out. The plug will slide right out the front of the lock. Once you have the plug in your hand, you can sight read the wafers after inserting a key in the plug.

Clarence White  
 Tennessee



**STRATTEC WINNER:  
 Binks Style Cylinder  
 Tip**

About twelve years ago, I discovered that a Corbin/Russwin (Part #1001-114-AD1) makes a great Binks (one way opening/opposite opening) type cylinders. The concept for this type of lock is to give a person that locks a

**80 • The National Locksmith**

**Jake's Tip of the Month...**

A Fire Marshall told a restaurant owner that he had to remove the slide bolt from his back door and install, or have installed, a panic exit device. The restaurateur called me to supply and install the device. The only fly in the ointment was that my new found customer was on a limited budget (aren't they all?) and didn't want to spend any more than "is absolutely necessary."

At some point in time, someone installed a Schlage "A" series passage function knobset, without a latch, as a pull handle and installed a filler plate over the latch prep. I decided to try to incorporate that knob into the new installation, if possible.

I decided to remove the inside knob and rose from the passage knob to expose the spindle and retainer plate. Next, I removed the retaining screws of the lockset and liberally coated them with red LOCTITE® and reinstalled them as tightly as was practical. Then, I used my trusty hacksaw to cut the inside spindle of the lock off flush with the retainer plate and as near to the inside face of the door as possible. I then installed the panic device over the retainer plate of the old passage set.

By utilizing the passage set as part of the installation of the new panic hardware, my customer could "dog" the device down during the day to allow access from the outside.

See Y'all next month



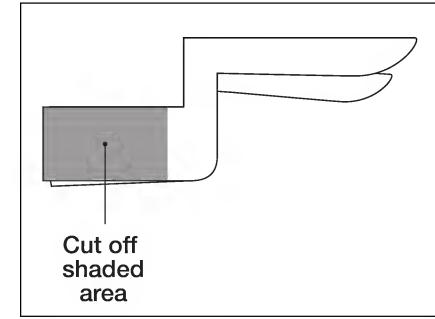
**by Jake  
 Jakubowski**

store door a key that will only turn in one (the locked) direction and the manager for example, a key that will turn in either both directions or only in the open direction.

With the Corbin lock you accomplish this by removing one of the stop pins (it's a hotel function cylinder) that is located inside of the cylinder shell between the cam and the pin stack. If you want the key to rotate clockwise you remove the pin and spring on the right side. On the other hand, if you want the key to rotate counter clockwise, remove the pin and spring from the left side. Then you give the employee a six pin blank, which will allow the cylinder to operate in one direction, and the manager gets a seven pin blank which will allow operation in both directions.

The only other thing that must be done is to replace the cloverleaf shaped cam with an Adams Rite style cam. This tip works with the Adams-Rite-style MS deadbolts or spring latches as well.

Jeffrey A. Oswalt  
 Florida



**Illustration 1.**

would not hold the lever in place and the lever would slip off the spindle. After several attempts and wondering just how dumb I could be, I discovered the problem.

There is a difference in the black plastic insert for the storeroom function lock and the red insert for their other functions. The insert I had was not the one that belonged with the leverset the customer gave me and would work only after I modified it. (See illustration 1.)

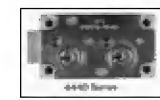
Once I shortened the tip of the insert the lever "clicked" right into place.

Bill Dodson  
 Texas



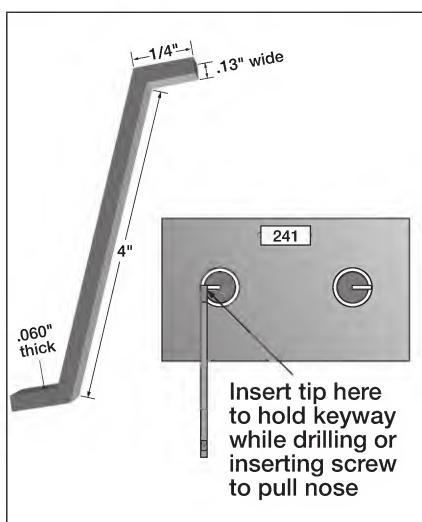
**HPC WINNER:  
 Sargent 10 Line  
 Lever Tip**

A customer gave me a Sargent 10-Line, storeroom function leverset to install. When I tried to install the outside lever, the retainer



**SARGENT &  
 GREENLEAF WINNER:  
 Safety Deposit Box  
 Drill Aid**

To keep the keyway from turning when drilling to insert a screw to pull the nose on a safety deposit box, I



**Illustration 2.**

have devised a solution. *Illustration 2*, shows how a piece of stainless steel will get the job done. The width is about the width of a standard tension wrench and the thickness is roughly the thickness of a safety deposit box key (about 4-1/2 inches long and .130 wide and .060 thick.) Next put a 1/4" long, 90° bend in each end as shown.

I have used this tool with a great deal of success and it will not twist or bend when I stabilize the keyway for drilling.

Glen Hutchinson  
 Texas



**A-1 SECURITY  
 PRODUCTS WINNER:  
 1998 Ford Pickup  
 Opening**

The Ford 250 pick-up truck has a new paddle handle on the door with the key cylinder below it. I tried picking the lock without success and decided to dust off an old Slim Jim I had in my truck.

I bent a 90° angle in the Slim Jim and inserted the tool at a 45° angle in front of the button. It grabbed the linkage and quickly opened the truck.

Ron Scott  
 Texas



**ILCO WINNER:  
 Ford Trunk Access**

On Ford products that have the five button electronic locks on the driver's door, I have had some success opening the trunks by using the five-digit code and hitting the last digit of the code twice or by punching in a "5". Alternatively, after hitting the last digit of the code, punch in a "9".

I have found this is most successful on vehicles where the owner is still using the factory set code, which seems to be most of the

time. I have had enough success using this method, that I routinely try it if first when having to open the trunk on a Ford vehicle equipped with these push button locks.

Steve Rogacki  
 New Jersey

situation over, I filed a slot in the 1426, big enough for the retainer bolt to fit and it worked fine.

I know you should always use the proper lock, but it was late at night and there was just no place for me to get one. Therefore, I used what I had on hand.

Jess' Lock & Key  
 Iowa

**KEEDEX WINNER:**

**KEEDEX GM Ignition  
 Substitution**

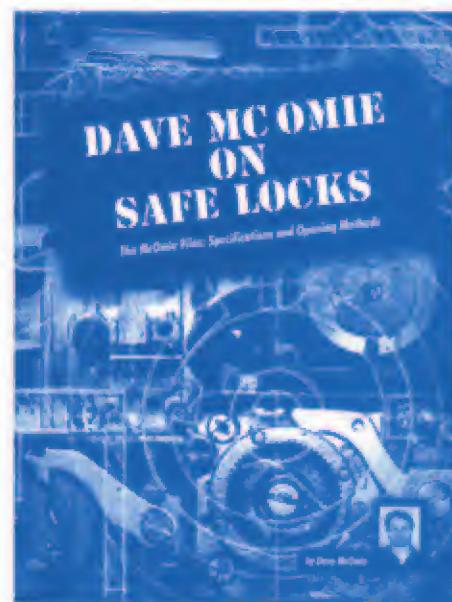
Several weeks ago, I had to replace a GM ignition in a stolen car that had been recovered. Unfortunately, I found that I did not have a 1428 ignition, but lots of 1426's. After looking the



**TECH-TRAIN WINNER:  
 Modifying Pin  
 Tweezers**

Ready-made pin tweezers or most homemade pin tweezers that I have

## Dave McOmie on Safe Locks



Almost 300 pages of information, photographs and illustrations give you every scrap of information about a huge variety of safe locks.

**CLICK HERE TO LEARN MORE**

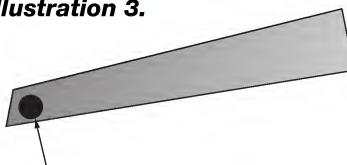
#DMSL - 1



seen have a groove on each blade, near the tip, for holding a pin. That's fine, except when you are working with mushroom pins. I have found they prove more difficult to push into the chamber when being held in conventional pin tweezers.

*Illustration 3*, shows how I took a pair of tweezers with thick tips and drilled a small retainer hole at the tip. Drill about two thirds of the way through the tip. You'll notice that this creates a stop or ledge that will prevent the pin from "pushing" further into the groove when you're trying to place it in the proper chamber. Not

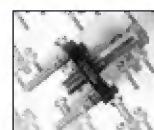
**Illustration 3.**



Drill appropriate sized hole only 2/3 the way through the tweezers blade to hold mushroom pins better.

only does this work well on mushroom style pins, but also on standard pins.

Werner Schulz  
Germany



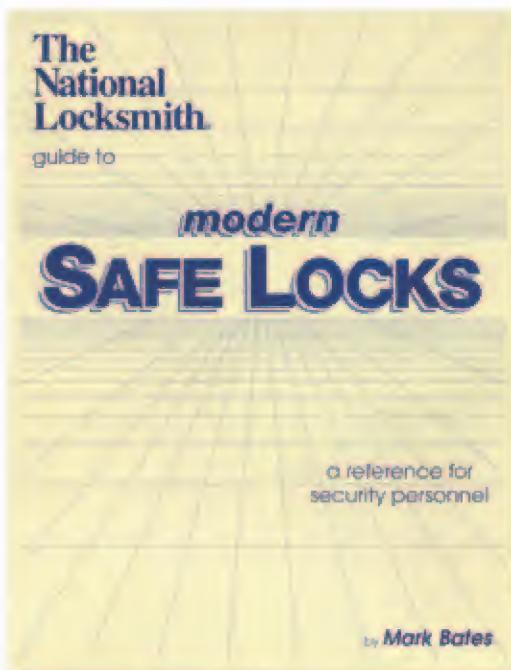
**SIEVEKING  
PRODUCTS WINNER:  
Shear Head Bolt  
Chisels**

When I need to loosen those pesky shear-headed bolts, I use punches that I make from concrete nails.

They come in various lengths and widths. You can grind them to a chisel point or a round point. Because of their smaller size, they are easier to use in the confined area around an ignition, than regular punches and of course, much cheaper.

George Henderson  
South Carolina

## Modern Safe Locks



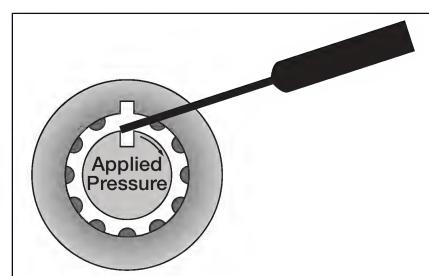
You always wanted to make money servicing safes?

**CLICK HERE TO LEARN MORE**



**MAJOR MANU-  
FACTURING  
PRODUCTS  
WINNER:  
Easier Ace  
Picking**

Over the years I have had several encounters with ace type locks of all types. I have tried more than a few ace picks, only to have them work about 25 percent of the time, possibly because of lack of constant practice on my part. However, I have found a way to increase my ability to pick Ace locks by about 60 percent. All you need is your trusted and reliable set of picks.



**Illustration 4.**

By saving those bent and broken diamond and rake picks everyone has, you have a pick that can be used for Ace locks as well. I have found that if you use a large, and strong, turning tool and place it in the keyway as shown in *Illustration 4*, the lock can be picked with a broken pick by pressing down on the pins one at a time.

In most cases you can feel many of the pins reach the shear line. By using a wooden mallet to rap the lock on occasion, this will help the pins that have gone beyond the sheer line reset themselves without

making marks on the face of the lock.

I have found that this method works best on locks that are a bit worn. I have also found that if picking doesn't work at first, just squirt a little WD-40 on the pins and try again.

D. L. Verzaal, CPL  
 North Carolina



**SLIDE LOCK WINNER:  
**GM Glove Box Trick****

Removing the plugs from paddle style GM glove boxed is a snap if you have a working key.

Simply depress the retainer and insert the key. The key holds the retainer down and all you have to do is turn the plug to remove it.

To reinsert the plug, simply push down on the retainer and insert the key and put the plug back into the assembly, put finger pressure on the face of the plug and remove the key.

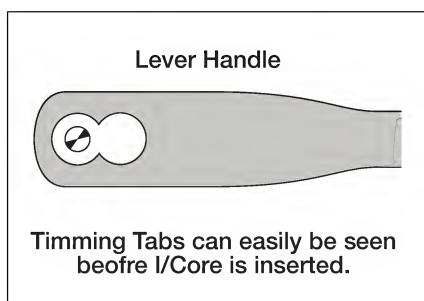
Wallace Mink  
 Tennessee



**SIEVEKING  
 PRODUCTS WINNER:  
**Best Timing Trick****

If you have an I/C lever lock (especially BEST style) that can be "jiggled" open when in the locked position, don't disassemble the lock body to correct the situation because it may be the timing ring needs to be adjusted, which can be seen when the core is removed.

As you can see in *illustration 5*, there are two small triangular shaped tabs that can be rotated with a screwdriver. Rotate the tabs clockwise (depending on the hand of the lock) until it stops. Then reinstall the core.



**Illustration 5.**

Sometimes during shipment or installation, this ring moves out of time and prevents the lock from locking completely.

Gary Davis  
 Virginia



**JET WINNER:  
**Hole Plugging****

Ever run into stripped out holes in wood or metal that prevented you from remounting a strike or latch?

If so, buy some Devcon Epoxy Putty at the hardware/home center stores. It comes in a clear blister package and it looks brown in color. Cut off a small portion and knead it with your fingers until the two colors (brown outside, gray inside) become uniform in color then apply to work area. Let it cure for about ten minutes and it will harden like a rock!

Once it sets, it can be drilled, tapped and sanded. It works great!

Jim Heffner  
 North Carolina

**Editor's Note:** Jim, there are numerous brands of stick-type epoxies on the market. I have used several different brands myself and find them every bit as good as you say the Devcon is. Thanks for the tip.

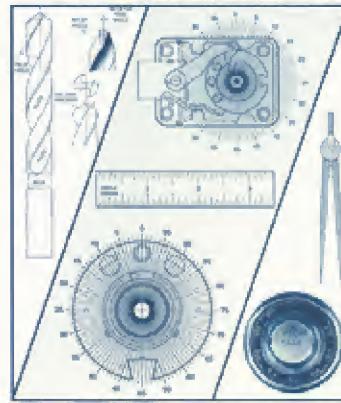
# Modern Safe Opening

**The National Locksmith.**

Guide to:

## Modern Safe Opening

Illustrated Step-by-Step Procedures



by Robert G. Sieveking

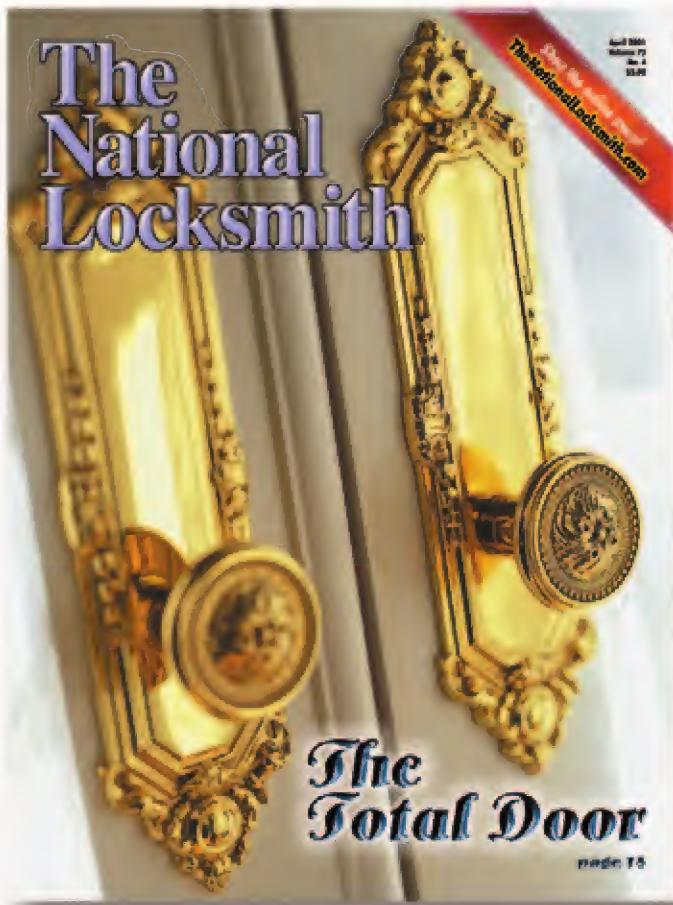
This book is a step-by-step How-To course in safe penetration. Opening safes is one of the most profitable aspects of the locksmithing business.

**CLICK HERE TO LEARN MORE**

#MSO - 1



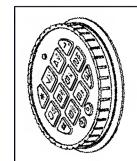
# TNL Subscriptions



This is THE source for automotive technology, safe opening techniques, electronic security and much, much more.

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#SUB - 1,2,3,4,5,6



LA GARD WINNER:  
**Hole-In-One File Handles**

Here's how I made what I think is the best impressioning file handle ever.

First measured up from the handle end of my file 3/4". At that point match a drill bit to the width of the file's tang. Then using that drill bit, drill a hole about one inch deep in a golf ball!

Inserted the tang of the file into the golf ball and while holding the file steady, I tap the golf ball on a hard surface to seat the file. You now have an excellent file handle that fits very nicely into the palm of my hand and gives me much better control over the file.

S. Craigan  
Texas



HIGH TECH  
TOOLS  
WINNER:  
**Quick GM  
Trunk  
Opening**

I think I have found a quicker and easier way to retrieve the keys from the trunk of GM cars when there is no time for progressioning or impressioning.

First look under the lip of the trunk lid and verify that there is a "U" clip on the underside of the lock. This clip is often held on with a PopRivet®. If the clip is there, all you need to do is take a flat bladed screwdriver and hammer and pop the rivet that holds the "U" clip in place.

Most of the time the clips will slide right out, but on some models there is a piece of metal that protrudes and you have to either manipulate the clip around it, or pry it gently aside to remove the clip. Once the clip is out, all you need to do is pull the lock cylinder out and use your flat bladed screwdriver to open the trunk and retrieve the keys.

To repair, simply reinstall the cylinder, replace the clip and replace the rivet. Jason Stair  
E-Mail

TNL

# The **UGHTER** Side

Worth a Thousand Words



by  
**Sara**  
**Probasco**

Well, the new year is in — last one of this millennium — and our resolutions are either firmly in force or in “file thirteen” by now. Maybe it’s time to kick back and think about the really important things in life, for a change. You know, things like who did kill Roger Rabbit, or what was it Confucius really said?

On the latter subject, I came across some “Confucius Say” witticisms recently that might be right up our alley. To wit:

*Confucius say,  
 Man who run in front of car get tired.  
 Man who run behind car get exhausted.  
 To prevent hangover, stay drunk.  
 War doesn't determine who's right; war determines who's left.  
 Man who breathes, inspires; man who does not breathe expires.  
 Man with one chopstick goes hungry.  
 Man who tells too many light bulb jokes soon burns out.  
 Man who sits on tack gets point.*

(You may be wishing you had a tack to sit on, about now!)

So, what is the point? Well, for one thing, as it’s the season of the Chinese New Year, I began to reminisce about the time, several years ago, when I was privileged to celebrate the Chinese New Year in Singapore.

That night, the entire downtown area was taken over by a parade which lasted for nearly four hours, complete with gongs, acrobats, and fire-breathing dragons. Firecrackers had been banned on the streets, by then æ even in Singapore æ but they made up for it with colored smoke bombs. Each large, decorated “float” was carried aloft on the shoulders of a dozen strong men, rather than being mounted on motorized vehicles, as they are in this country. Even the acrobats’ swings and tight-ropes were suspended from long poles, high above the heads of “bearers,”

who held the poles steady as they proceeded on foot down the street.

Earlier that day, while shopping at a huge Toys R Us in one of the thoroughly modern downtown shopping malls, I had heard a commotion on the level below and stepped out into the balconied corridor to see what was going on. There, on the level below me, stood a huge, fire-breathing dragon in all his glory. He was manned by at least a half dozen people and accompanied by others bearing a huge gong, which they frequently sounded with a large padded mallet. They went from store to store chasing out demons, I learned, to cleanse the shops for the coming of the New Year. (Something like the blessing of the fleet in our country, I suppose.)

The problem was, a couple of the shops were not open at the time, so the dragon couldn’t get in to do his thing. This created quite a hubbub, with much shouting and running about. I learned this “exorcism” was considered a one-chance-only event — at least, at this particular location — and if anyone failed to participate, the entire mall would be in jeopardy from evil spirits throughout the coming year. Not a good thing!

As the shop keepers could not be located, a locksmith was finally summoned to let the dragon in. The problem was, the man they brought was simply a key-cutter from a key

duplication shop on the top floor, and he knew little, if anything, about picking open the locks. He tried keys from a large ring. He tried keys offered by other shop keepers. He tried manipulating the locks with various crude tools at his disposal, but nothing worked.

If only I’d had my picks, I might have helped, but I had not brought them along on my journey. Finally, as the dragon seemed about to melt the lock with his fiery breath, the embarrassed shop owner was hustled up by two compatriots, his egg-roll lunch still clutched in his hand.

A sigh of relief and a round of applause from the concerned crowd that had gathered greeted the opening of the door. The dragon fired up, the gong sounded, incense was re-lighted, and the entourage crowded into a store obviously too small to hold smoking incense, gong bangers, fire-breathing dragons, and evil spirits, too.

“All this sounds pretty fantastic, to me. I hope you took some pictures,” Don said when I first told him of the experience.

“Three rolls,” I replied, pleased with myself.

Unkown to me at the time, there was a problem. In using a borrowed camera I had put the film in wrong, and not a single picture of the entire Chinese New Year

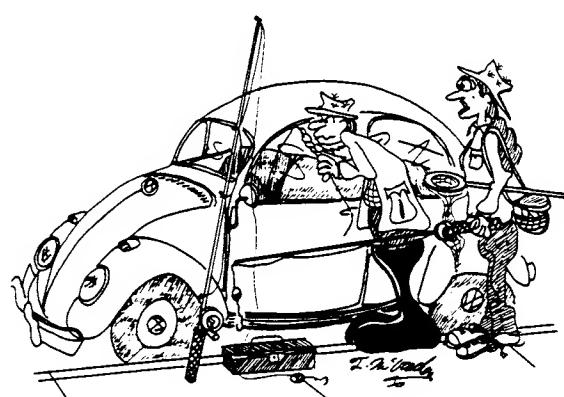
festivities turned out right. So much for verification of my exotic experiences.

“Well, I wouldn’t worry about it, too much,” Don said, trying to comfort me. “You know what you saw and did, and that’s what really counts. Besides, the pictures of you and the elephant came out great.” He tried to suppress a chuckle, but didn’t quite succeed.

“Thanks a lot,” I retorted. “That thought will really make my day.”

I had tried to get the

**“A thousand dollars worth of fishing equipment and you can't snare a simple set of car keys?”**



negatives of those highly unflattering photos, taken from my back-side by my daughter as I was awkwardly trying to climb aboard the pachyderm's bristly back, but they mysteriously disappeared. I suspected somebody had tucked them away for potential future blackmail purposes.

When Don came in that night, he found me pouring over a stack of photo albums and a large box of loose pictures.

"What's up?" he asked.

"Oh, nothing," I replied. "Our conversation this morning got me to thinking about some of our old pictures. Remember this one?" I showed him one of himself standing proudly beside his first "service truck," a 1980 pickup with a cab-over and "LOCKSMITH" lettered in self-stick vinyl across the tail gate. "And look at this," I added, displaying our next step in service vans, a refurbished huge Frito Lay van which had become lovingly known as our "mobile billboard."

"Those were the days," Don said, his eyes gleaming. "Of course, we missed getting pictures of some of the best times," I said. "You know, like when you were first learning to take locks apart. Remember that evening in Amarillo, when you were working at the breakfast table, and pins and springs suddenly flew all over the room?" I giggled. "Boy, were you mad!"

Don wasn't laughing.

"And when we were living up at South Plains, that first year you were in locksmithing, remember the very first Volvo you ever tried to open? You were out there in the freezing, blowing rain going from one door to another, trying to get it open, and me drinking cup after cup of coffee with Peggy, trying to keep her from bothering you. It took you nearly three hours to get in. After all that coffee, I thought I'd never sleep again." I laughed.

"I don't remember it that way, at all," Don said. He was not even smiling.

"Well, that's one reason why I wish I'd had a camera. You know what Confucius said: 'A picture is worth a thousand words.'"

"Oh yeah?" Don snapped. "Well maybe he should have said, 'When no picture available, is wise to keep mouth shut.'"

TNL

# NSO One Year Membership



To make big profits in safe work with no hassles...you need information!

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# THE CASH STATION

by Mark Gerhardt

## Triton ATM

**ATM Manufacturer**  
Triton Systems, Inc.

**ATM Model #**  
9600 Series. This is a portable low security level ATM designed for businesses.

**Safe Manufactured by**  
Triton. Door is stamped sheet metal with a welded 3/8-inch steel plate to mount lock.



**Handle Type**  
T-Handle.

**Handle Rotation**  
Counter-Clockwise to open.

**Dial Center to Handle Center**  
4 1/4 inches.

**Dial Location**  
Dial center is 12-3/4 inches down from top of door and 11-inches from opening side.



# THE CASH STATION

## Triton ATM

**Number of Door Locking Bolts**

4

**Door Locking Bolt Locations**

Locking bolts are 3-inches in from opening edge and hinge side of door and approximately 1-inch back.

**Door Thickness to Lock Case**

1/2-inch.

**Door Thickness to Back of Lock**

1-5/8 inches.

**Lock Type**

Ilco P-67

**Lock Description**

Group 2, three wheel, key changeable lock.

**Lock Case Thickness**

1-1/8 inches.

**Number of Wheels**

3

**Driver Location**

Rear

**Lock Handing**

Left Handed (LH)

**Drop-In Location**

46

**Forbidden Zone**

0 to 20

**Lock Opening Procedures**

4xL to first number, 3xR to second number, 2xL to third number, 1xR until dial stops.

**Lock Drill Point**

Lever Fence. 7/8-inch from dial center at 47. Align wheel gates at lever fence. The bottom dial ring screw hole at the 6:00 position is in a perfect location as well. Hole goes all the way through to back of lock.

**Lock Relock Trigger Type**

Spring loaded arm drops in lock bolt slot when lock cover is removed.

**Lock Relock Trigger Drill Point**

1-7/8 inches right of dial center. 1/2-inch up. Hook with a wire and pull towards front of safe.

**External Relock Device Type**

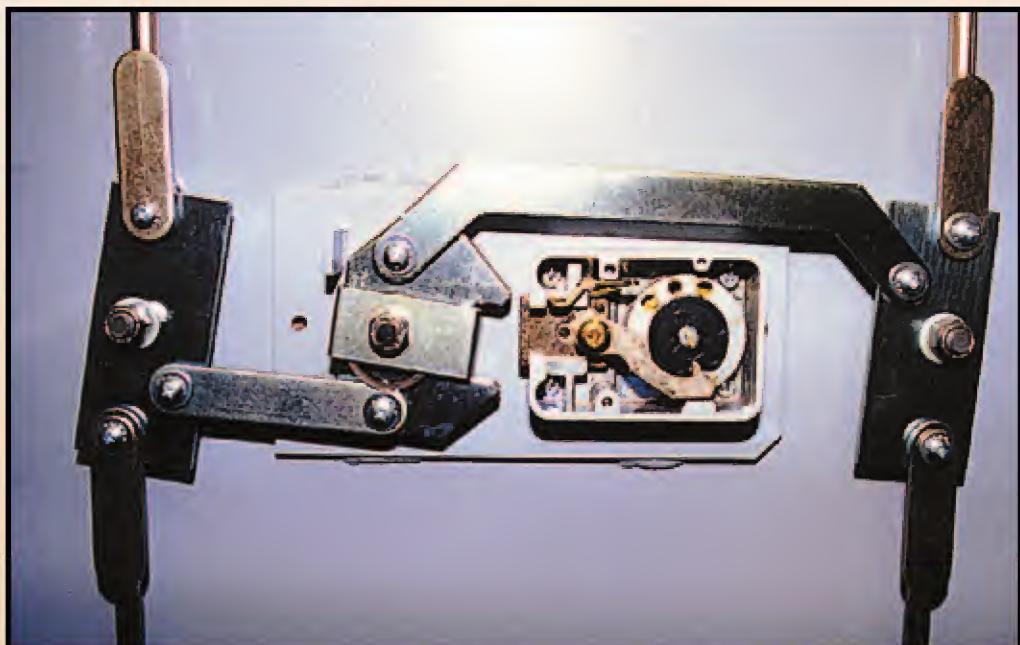
No external relock device.

**External Relock Device Drill Point**

None.

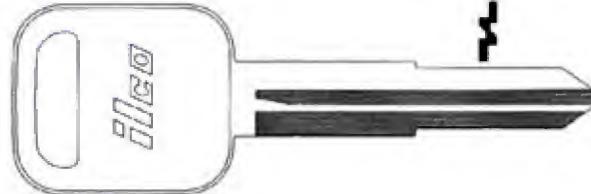
**Special Notes**

You will notice that the top glass is broken out. This is common because when someone's card is declined they get mad and punch the glass out. It is at just the right level. 



# KEY CODES

## Isuzu Series D4001-D6000



**Manufacturer:** Isuzu

**Code Series:** D4001-D6000

**Key Blanks**

**Curtis:** B74

**Ilco:** X198

**Ilco EZ:** B74

**Silca:** GM24R

**Number of Cuts:** 9

**M.A.C.S.:** 3

**Key Gauged:** Shoulder

**Center of First Cut:** .098

**Cut to Cut Spacings:** .083

**Cut Depth Increments:** .0160

**Spacings:**

1 - .098

2 - .181

3 - .263

4 - .346

5 - .429

6 - .511

7 - .594

8 - .677

**Depths:**

1 = .314

2 = .299

3 = .283

4 = .267

5 = .251

**HPC 1200CMB**

**Code Card:** CF89

**Cutter:** CW1011

**Jaw:** A

**Gauge From:** Shoulder

**HPC Punch**

**PCH Card:** PF89

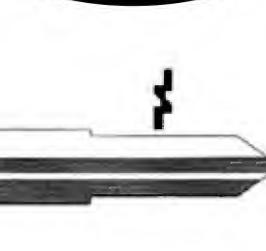
**Punch:** PCH1011

**Jaw:** A

**HPC CodeMax**

**DSD #:** 255

**The 1200 HPC CMB code card for this code series is between pages 110-113.**



**Framon**

**Cuts Start at:** .098

**Spacing:** .083

**Block #:** 5

**Depth Increments:** .157

**Curtis**

**Cam-Set:** GM-5

**Carriage:** GM-5B

**A-1 Pack-A-Punch**

**PAK-G6**

**ITL #:** 507

D4001	34525254	D4035	43432145	D4069	41432321	D4103	34123432	D4137	41252141	D4171	54321214
D4002	43412145	D4036	12145254	D4070	14121254	D4104	54121454	D4138	52541432	D4172	43414121
D4003	41454345	D4037	25252141	D4071	23432145	D4105	23452523	D4139	45454323	D4173	32141214
D4004	14521432	D4038	41214143	D4072	41214145	D4106	12123434	D4140	12521412	D4174	43434123
D4005	41252143	D4039	21434321	D4073	12523434	D4107	52541234	D4141	52141252	D4175	25234141
D4006	25214123	D4040	21432321	D4074	53343214	D4108	32543212	D4142	41452525	D4176	43252123
D4007	32341434	D4041	23214321	D4075	21232543	D4109	12143214	D4143	43432345	D4177	21214541
D4008	52143412	D4042	14321432	D4076	12321214	D4110	43212523	D4144	52543432	D4178	43454141
D4009	25432543	D4043	52143254	D4077	14121434	D4111	45234325	D4145	52145412	D4179	32125432
D4010	43232145	D4044	54343452	D4078	32125434	D4112	21412323	D4146	45412125	D4180	45234121
D4011	41232345	D4045	52125234	D4079	52541412	D4113	45414121	D4147	45254143	D4181	23252545
D4012	14521412	D4046	52143432	D4080	12545234	D4114	25232341	D4148	52121232	D4182	45254341
D4013	45452321	D4047	23212143	D4081	14123434	D4115	52543454	D4149	52141434	D4183	14321212
D4014	54543414	D4048	41252345	D4082	32525412	D4116	43452143	D4150	14143254	D4184	32341234
D4015	12543412	D4049	23234141	D4083	54325434	D4117	41412341	D4151	14141452	D4185	23414141
D4016	14145214	D4050	23434125	D4084	34521434	D4118	12345214	D4152	34141254	D4186	54325232
D4017	14345232	D4051	12141232	D4085	45232125	D4119	25214323	D4153	12541414	D4187	41234325
D4018	14523214	D4052	12345412	D4086	25254145	D4120	14125434	D4154	43434121	D4188	34125454
D4019	23454321	D4053	14125412	D4087	34143452	D4121	32323214	D4155	14545254	D4189	23434141
D4020	21214341	D4054	52341452	D4088	41454325	D4122	34343452	D4156	12521452	D4190	32345254
D4021	12143452	D4055	12123412	D4089	14345212	D4123	34541212	D4157	43232121	D4191	14343232
D4022	52123234	D4056	21212343	D4090	45254145	D4124	45234545	D4158	21254523	D4192	32125212
D4023	32543252	D4057	32143452	D4091	43212123	D4125	25452141	D4159	32125214	D4193	41434323
D4024	21454343	D4058	12345432	D4092	41414321	D4126	25214141	D4160	41254141	D4194	21234541
D4025	52343414	D4059	21414145	D4093	54123234	D4127	41252321	D4161	23232521	D4195	14341252
D4026	23212325	D4060	12345452	D4094	12341252	D4128	43232541	D4162	32521234	D4196	41454343
D4027	43454323	D4061	21254521	D4095	14345234	D4129	14521212	D4163	52123252	D4197	52145432
D4028	25254345	D4062	32343252	D4096	23434541	D4130	14525252	D4164	14341454	D4198	12341234
D4029	12123234	D4063	32545452	D4097	43452123	D4131	52541452	D4165	34123234	D4199	23454345
D4030	34123214	D4064	25454325	D4098	32523454	D4132	41232143	D4166	34323412	D4200	41434345
D4031	41434543	D4065	21432521	D4099	45414143	D4133	34525414	D4167	43252121	D4201	34341232
D4032	21254543	D4066	23454325	D4100	12123214	D4134	12545412	D4168	43214123	D4202	14525434
D4033	25234543	D4067	41254145	D4101	34121232	D4135	14341412	D4169	34145252	D4203	52145434
D4034	12343414	D4068	34545432	D4102	12143252	D4136	52123412	D4170	41234541	D4204	45212523

# Isuzu Series

## D4001-D6000

D4205	45232345	D4237	12341412	D4269	25234345	D4301	43432125	D4333	23454121	D4365	23214145
D4206	14525452	D4238	52125454	D4270	12521432	D4302	41234525	D4334	52543434	D4366	21452321
D4207	34125232	D4239	21432525	D4271	34125414	D4303	45214321	D4335	41414523	D4367	34345212
D4208	45234541	D4240	12521434	D4272	14543434	D4304	25254343	D4336	45212123	D4368	45432525
D4209	34341212	D4241	12325254	D4273	21254343	D4305	52343432	D4337	41234523	D4369	34141234
D4210	34541234	D4242	23412343	D4274	23452143	D4306	12345232	D4338	34125214	D4370	43214523
D4211	32143414	D4243	32121412	D4275	54343252	D4307	41434121	D4339	54121254	D4371	41412523
D4212	21252323	D4244	14143234	D4276	25254521	D4308	23414325	D4340	41232121	D4372	23452325
D4213	45412145	D4245	43232525	D4277	32123412	D4309	25434321	D4341	52341254	D4373	14521254
D4214	14523412	D4246	45432125	D4278	34321414	D4310	32321454	D4342	52345254	D4374	34123252
D4215	34123434	D4247	21414321	D4279	54521252	D4311	14323434	D4343	14525214	D4375	45252123
D4216	21434541	D4248	21454521	D4280	32545214	D4312	21234521	D4344	43454125	D4376	43414521
D4217	14323214	D4249	45434325	D4281	45432543	D4313	54143234	D4345	43452323	D4377	43234143
D4218	23234523	D4250	43254541	D4282	43254141	D4314	45254321	D4346	25214521	D4378	41414323
D4219	14341214	D4251	23432525	D4283	14445254	D4315	14343252	D4347	41454341	D4379	23254545
D4220	34141214	D4252	45412321	D4284	41252343	D4316	14543232	D4348	21234523	D4380	54143432
D4221	21454523	D4253	54541234	D4285	54521434	D4317	32145454	D4349	21232523	D4381	45452343
D4222	23452123	D4254	54123212	D4286	34543412	D4318	34145232	D4350	52121412	D4382	32521414
D4223	25412123	D4255	32123214	D4287	14321412	D4319	23234121	D4351	52541414	D4383	14521454
D4224	52325432	D4256	25234545	D4288	41412323	D4320	25432325	D4352	43212143	D4384	41234321
D4225	32545414	D4257	32525454	D4289	43412523	D4321	54325254	D4353	41212143	D4385	43432141
D4226	14123234	D4258	12541434	D4290	54323454	D4322	14343234	D4354	52121254	D4386	41454321
D4227	32321434	D4259	54341214	D4291	45234145	D4323	12125234	D4355	12525434	D4387	41232321
D4228	34325254	D4260	23412321	D4292	54541434	D4324	54543214	D4356	14125254	D4388	25214321
D4229	45212341	D4261	54121434	D4293	45412541	D4325	34121414	D4357	12145414	D4389	14543214
D4230	43212345	D4262	32121434	D4294	45212521	D4326	12323432	D4358	41452521	D4390	54141232
D4231	12123452	D4263	54125254	D4295	34141452	D4327	12523432	D4359	25432345	D4391	34543232
D4232	21414521	D4264	52145232	D4296	45452543	D4328	32121252	D4360	12545452	D4392	12545434
D4233	23234543	D4265	25232141	D4297	45252345	D4329	23414125	D4361	43212141	D4393	43452345
D4234	52125432	D4266	23454123	D4298	23212125	D4330	23232125	D4362	12543432	D4394	21434125
D4235	54525434	D4267	34325232	D4299	14543212	D4331	21252543	D4363	52545414	D4395	23414323
D4236	25232541	D4268	14143212	D4300	41254521	D4332	52141212	D4364	54523252	D4396	34325252

## InstaCode

PREMIUM KEY CODE SOFTWARE



#IC - 2001

## InstaCode

Your total code and code machine management program.



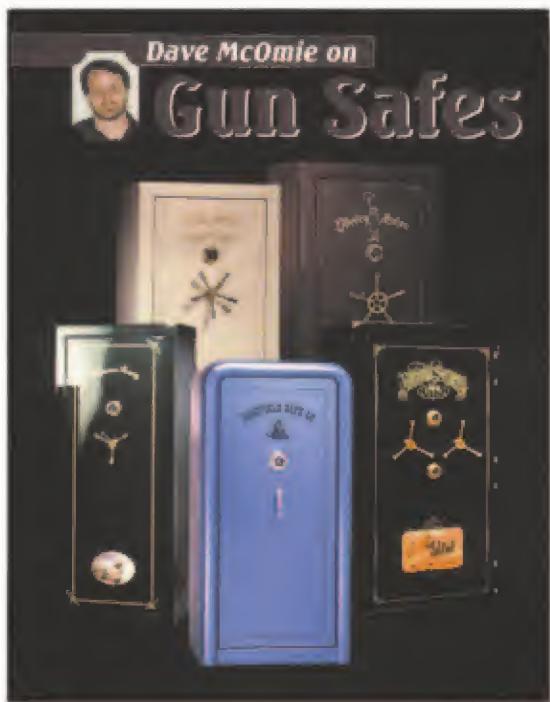
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## Isuzu Series

### D4001-D6000

D4397	45252121	D4409	21212541	D4421	41432343	D4433	23414123	D4445	52323212	D4510	14145452
D4398	23432543	D4410	54323432	D4422	32125252	D4434	12323234	D4446	41412545	D4511	21412343
D4399	54125452	D4411	32341432	D4423	21254541	D4435	41254525	D4447	34541452	D4512	34523454
D4400	54125232	D4412	45434141	D4424	43232321	D4436	25414343	D4448	41414543	D4513	14321414
D4401	32325412	D4413	43254145	D4425	23254345	D4437	12521254	D4449	34343412	D4514	25414125
D4402	41452341	D4414	32125414	D4426	14345432	D4438	45252323	D4450	21412341	D4515	14125232
D4403	12143412	D4415	21452343	D4427	25212325	D4439	14543412	D4451	12141254	D4516	21432545
D4404	34145212	D4416	14523434	D4428	34121412	D4440	14325434	D4452	23252543	D4517	54341412
D4405	34323254	D4417	34523234	D4429	21454141	D4441	14123454	D4453	52345214	D4518	32543434
D4406	34314525	D4418	14145234	D4430	12543232	D4442	45252543	D4454	14325234	D4519	14325232
D4407	21232541	D4419	21214321	D4431	32523212	D4443	25412541	D4455	34143232	D4520	14525234
D4408	23232345	D4420	54345414	D4432	32143412	D4444	21454543	D4456	23232141	D4521	45432523

## Gun Safes



Need a drill point or relocker drill point  
on a gun safe?

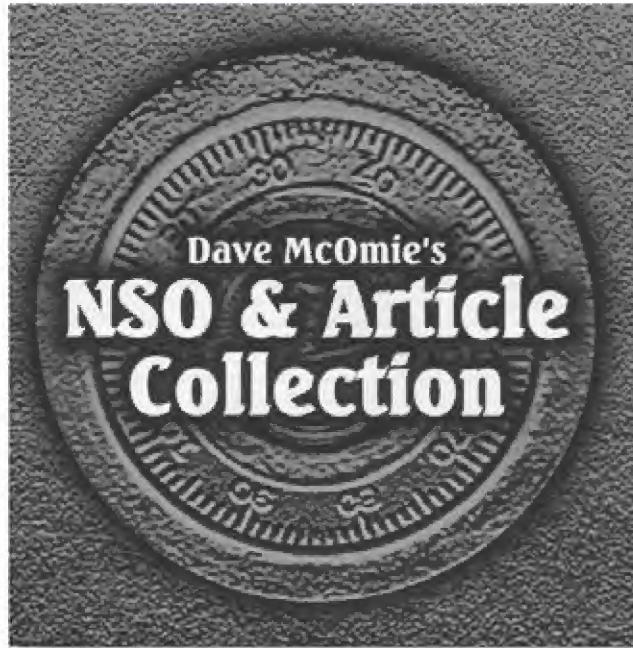
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#GS - 1

# Isuzu Series

## D4001-D6000

D4575	43434521	D4605	14125454	D4635	12545454	D4665	14545212	D4695	23452321	D4725	54143254
D4576	32543432	D4606	43232123	D4636	34345432	D4666	41232541	D4696	12543252	D4726	14121252
D4577	21234345	D4607	12521234	D4637	25432123	D4667	23214545	D4697	41434525	D4727	54321254
D4578	25412145	D4608	23214525	D4638	45234143	D4668	52341232	D4698	32543452	D4728	21454143
D4579	52141454	D4609	23252345	D4639	52121214	D4669	14521452	D4699	45434541	D4729	41254321
D4580	34145432	D4610	41434521	D4640	23234325	D4670	12145252	D4700	54121212	D4730	43212525
D4581	41232523	D4611	45254343	D4641	43252525	D4671	52321234	D4701	25232321	D4731	21434325
D4582	41214125	D4612	52343214	D4642	54323232	D4672	52143212	D4702	25252143	D4732	12525414
D4583	21432343	D4613	25252543	D4643	23234345	D4673	25234121	D4703	14525254	D4733	41454323
D4584	32143432	D4614	14143452	D4644	25434123	D4674	32545454	D4704	12345212	D4734	12543234
D4585	21412143	D4615	41254523	D4645	54141234	D4675	41454123	D4705	12543414	D4735	54325412
D4586	41252145	D4616	14145434	D4646	34345414	D4676	43232345	D4706	25432321	D4736	23412141
D4587	41232123	D4617	43432325	D4647	54143454	D4677	14323232	D4707	43412341	D4737	12145452
D4588	21212523	D4618	25252343	D4648	21434341	D4678	41254323	D4708	12325232	D4738	12543212
D4589	23454543	D4619	23432125	D4649	41414125	D4679	32123432	D4709	25452323	D4739	32141232
D4590	52545432	D4620	52523412	D4650	12343232	D4680	54523232	D4710	34321234	D4740	54325454
D4591	45452523	D4621	21234341	D4651	41252325	D4681	45234323	D4711	21412543	D4741	32521454
D4592	21412321	D4622	25414123	D4652	12345434	D4682	32345232	D4712	43452341	D4742	52145414
D4593	41234341	D4623	32323412	D4653	43212545	D4683	41252541	D4713	34321232	D4743	54545432
D4594	41232545	D4624	34525232	D4654	41254343	D4684	54325432	D4714	12345454	D4744	43412525
D4595	25432525	D4625	32145234	D4655	14123412	D4685	43452545	D4715	34141232	D4745	54123412
D4596	43412543	D4626	41434145	D4656	45414123	D4686	54341234	D4716	34343214	D4746	32321234
D4597	34125452	D4627	45232325	D4657	52321232	D4687	12343234	D4717	23212345	D4747	45212541
D4598	54145212	D4628	41252523	D4658	32121214	D4688	54543254	D4718	43254521	D4748	23434325
D4599	54521254	D4629	32321412	D4659	23454343	D4689	25414141	D4719	52521414	D4749	25454145
D4600	34123412	D4630	54541252	D4660	25214541	D4690	52545232	D4720	21414143	D4750	52543254
D4601	32325414	D4631	34341252	D4661	34125434	D4691	52341214	D4721	34541412	D4751	43412343
D4602	52345414	D4632	25254141	D4662	14125252	D4692	32123414	D4722	25454121	D4752	54521432
D4603	54525432	D4633	41214321	D4663	43214343	D4693	43454325	D4723	14541432	D4753	25432341
D4604	25234145	D4634	12541254	D4664	25434545	D4694	41212545	D4724	43454123	D4754	52121414



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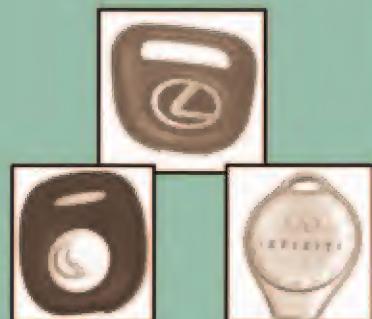
# Isuzu Series

## D4001-D6000

D4755	52541252	D4784	45454123	D4813	21434123	D4842	21234143	D4871	12141234	D4900	21252541
D4756	25434523	D4785	45432321	D4814	43254545	D4843	32521412	D4872	23452525	D4901	32325212
D4757	23412145	D4786	23232543	D4815	25452541	D4844	34345254	D4873	14123214	D4902	14545232
D4758	43234121	D4787	21412545	D4816	34523254	D4845	34545414	D4874	41434321	D4903	54525234
D4759	52525214	D4788	52345234	D4817	32521434	D4846	32341232	D4875	45432123	D4904	12543254
D4760	14321434	D4789	34523452	D4818	23454523	D4847	21214525	D4876	45452121	D4905	34321432
D4761	52123452	D4790	41432141	D4819	45434323	D4848	25212143	D4877	54141214	D4906	14523452
D4762	54323434	D4791	32545212	D4820	34325452	D4849	34525454	D4878	21434345	D4907	45232323
D4763	41452121	D4792	12325252	D4821	32341454	D4850	45252125	D4879	25434121	D4908	25454321
D4764	43234125	D4793	21434521	D4822	21432541	D4851	52143232	D4880	32523434	D4909	43414125
D4765	54145232	D4794	54325452	D4823	41432325	D4852	54323234	D4881	25454341	D4910	14541254
D4766	34143454	D4795	34523414	D4824	14325254	D4853	32123454	D4882	23214341	D4911	41232145
D4767	52321412	D4796	45232541	D4825	14543234	D4854	52125414	D4883	45434143	D4912	45412525
D4768	34521214	D4797	21234343	D4826	34543254	D4855	12323252	D4884	23212543	D4913	41232543
D4769	25414143	D4798	32341254	D4827	34143234	D4856	23252143	D4885	23432121	D4914	45412543
D4770	43432541	D4799	21434543	D4828	23434525	D4857	52523414	D4886	32341412	D4915	12521454
D4771	23452121	D4800	34321434	D4829	14541234	D4858	25234143	D4887	32523234	D4916	52141214
D4772	12343214	D4801	32145214	D4830	52343232	D4859	23232341	D4888	21414323	D4917	45412121
D4773	21254323	D4802	52521234	D4831	54541212	D4860	12545232	D4889	21232141	D4918	12321252
D4774	54345212	D4803	23414525	D4832	32345252	D4861	21434523	D4890	54123434	D4919	45252523
D4775	52321454	D4804	25414325	D4833	54125214	D4862	43232125	D4891	23412341	D4920	54321452
D4776	54325212	D4805	12321254	D4834	43214541	D4863	21414343	D4892	32141414	D4921	32343452
D4777	14321234	D4806	14341452	D4835	14545412	D4864	32543412	D4893	52121434	D4922	45412345
D4778	52143434	D4807	34145214	D4836	43212541	D4865	43452321	D4894	14123414	D4923	45234521
D4779	41214523	D4808	43432321	D4837	45414325	D4866	21234141	D4895	52525234	D4924	32345212
D4780	41432123	D4809	32543232	D4838	14121234	D4867	54341232	D4896	54321212	D4925	12525432
D4781	12323412	D4810	21452141	D4839	21452121	D4868	52143234	D4897	21432345	D4926	14321232
D4782	43234541	D4811	45252143	D4840	32341214	D4869	25234323	D4898	23234143	D4927	21214345
D4783	41234143	D4812	43414325	D4841	14325454	D4870	23234541	D4899	23414321	D4928	14343432

Japanese High Security  
Auto Servicing

Lexus, Millenia, Q45



For Professional Locksmith Use Only

by: Michael Hyde

## Japanese High Security

Some of the most profitable cars are also the trickiest to work on.

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# Isuzu Series

## D4001-D6000

D4929	41434125	D4978	21414545	D5027	25412141	D5076	12145212	D5125	43234325	D5174	34141412
D4930	32543454	D4979	43452145	D5028	34143432	D5077	25252341	D5126	54143214	D5175	52123454
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#LRM - 1

## Isuzu Series D4001-D6000

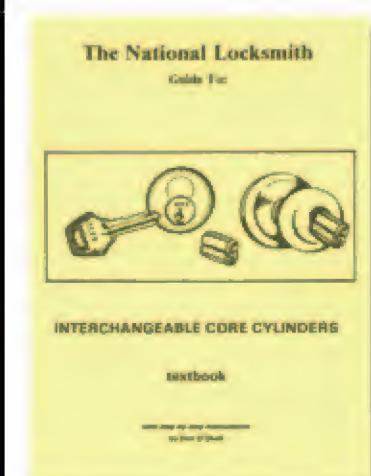
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# Isuzu Series

## D4001-D6000

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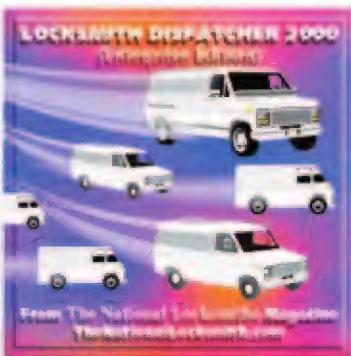
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- Best A4 • Corbin X Removable Core
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#ICB - 1

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### D4001-D6000

D5743	25212343	D5809	45254141	D5875	54525414	D5941	45214123
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D5759	45412323	D5825	25452523	D5891	32145212	D5957	12343454
D5760	54325414	D5826	52341212	D5892	54521414	D5958	43232143
D5761	21252325	D5827	25454521	D5893	54321412	D5959	21452143
D5762	54343254	D5828	32325454	D5894	52543234	D5960	25252321
D5763	32141234	D5829	32143454	D5895	14145412	D5961	45452143
D5764	25452343	D5830	45214525	D5896	34141252	D5962	34523212
D5765	32141454	D5831	41432345	D5897	14545432	D5963	54143452
D5766	54525232	D5832	32541254	D5898	12323414	D5964	32341452
D5767	34345452	D5833	25232143	D5899	21412525	D5965	41452541
D5768	12323452	D5834	54125454	D5900	43212145	D5966	21414125
D5769	52521434	D5835	23434523	D5901	25434143	D5967	45232123
D5770	32325452	D5836	41252341	D5902	21234323	D5968	41214343
D5771	52325214	D5837	32325254	D5903	21434121	D5969	25212545
D5772	54523432	D5838	54321454	D5904	54541232	D5970	23254521
D5773	43412545	D5839	41412125	D5905	34125234	D5971	32141212
D5774	32521232	D5840	52141412	D5906	52321414	D5972	45234543
D5775	43434125	D5841	12123454	D5907	14541412	D5973	43452141
D5776	45232321	D5842	52521412	D5908	54141434	D5974	54141432
D5777	52145252	D5843	43412323	D5909	14321254	D5975	23434345
D5778	45232141	D5844	32123234	D5910	54545212	D5976	41232325
D5779	23212343	D5845	25214345	D5911	45232121	D5977	41214323
D5780	12143432	D5846	43452541	D5912	43432543	D5978	52543212
D5781	14343254	D5847	25412121	D5913	41454143	D5979	54345452
D5782	25414145	D5848	45414525	D5914	52341414	D5980	41412143
D5783	14545252	D5849	34525412	D5915	12545212	D5981	41452125
D5784	45452145	D5850	14341212	D5916	52323454	D5982	23412123
D5785	14143232	D5851	23452125	D5917	23252123	D5983	23234525
D5786	12145434	D5852	54141254	D5918	23414121	D5984	45414521
D5787	52543414	D5853	32521252	D5919	41214325	D5985	45234523
D5788	43234341	D5854	21212325	D5920	52121234	D5986	32523254
D5789	14343412	D5855	54543234	D5921	12543452	D5987	34325214
D5790	52323414	D5856	21432125	D5922	21414345	D5988	12125412
D5791	25432143	D5857	12545252	D5923	34341432	D5989	45254323
D5792	32141252	D5858	23412125	D5924	52521432	D5990	41232525
D5793	45252521	D5859	34343254	D5925	43234123	D5991	52325254
D5794	23214543	D5860	52125434	D5926	12343452	D5992	52145214
D5795	52343452	D5861	34521232	D5927	43234545	D5993	12123254
D5796	54345252	D5862	25432343	D5928	43254343	D5994	23452543
D5797	41254541	D5863	41432145	D5929	34121432	D5995	23414521
D5798	32121454	D5864	34525212	D5930	14321252	D5996	21254321
D5799	25232121	D5865	32341212	D5931	54323412	D5997	14123252
D5800	25452123	D5866	54525214	D5932	14343212	D5998	21214545
D5801	52125214	D5867	43412345	D5933	14125234	D5999	43454341
D5802	54543452	D5868	25434525	D5934	12523454	D6000	12321412
D5803	43252343	D5869	25432145	D5935	12345414		
D5804	54145234	D5870	23232541	D5936	34541434		
D5805	34523214	D5871	12541214	D5937	23452521		
D5806	41212123	D5872	25434141	D5938	21434145		
D5807	41452343	D5873	32541452	D5939	23414143		
D5808	43414323	D5874	41452145	D5940	12341254		

TNL

# MUL-T-LOCK LOCKSETS

MUL-T-LOCK is well known for its massive heavy-duty padlocks, deadbolts and other rather hefty specialty security devices. It is also known for its somewhat unusual dimple cut style high-security keys. Its unique pin tumbler construction requires a special dual dimple cut key. In each pin chamber, there are two sets of independent operating tumblers.



by  
**Sal Dulcamaro,**  
**CML**

Like regular pin tumbler locks there are top, master, and bottom pins. Unlike typical pin tumbler locks, each pin chamber contains a set of solid inner pins, and a separate set of outer pins. The outer pins have holes in the center to allow the inner pins to move up and down within them. The operating keys likewise have five cut positions, but each position contains an inner cut to operate the inner pin and an outer cut to operate the outer pin.

Like quite a few other lock companies going after the high security market, MUL-T-LOCK makes aftermarket lock cylinders that function with other brands of lock hardware. Lock cylinders such as mortise cylinders and rim cylinders. MUL-T-LOCK also makes knob (and lever handle) style lock cylinders.

1. A sample of the MUL-T-LOCK lever handle cylindrical lockset and a knob style cylindrical lockset.



2. A side view of MUL-T-LOCK's Grade 2 key-in-lever lock.



MUL-T-LOCK recently introduced its own line of cylindrical locksets. *Photograph 1*, shows a sample of a lever handle cylindrical lockset (in dull chrome), and a knob style cylindrical lockset (in polished brass). In front of each lock is a pair of keys and an identification card for ordering duplicate keys. These locks came with the patented Interactive key, which replaces one of the five dual cut key positions with a free floating embedded pin. The matching pin chamber does not use standard MUL-T-LOCK pins. The Interactive lock cylinder requires the free-floating pin to over travel above the height of the key blade to actuate a mechanism in the lock.

A side view of MUL-T-LOCK's Grade 2 key-in-lever lock is shown in *photograph 2*. Like many other cylindrical lever handle locks, you will need to drill two extra auxiliary mounting holes when switching from knob to lever handle locks. This lock would require the mounting holes to be positioned at 12 o'clock and 6 o'clock.

*Photograph 3*, shows a close-up view of a key, ID card and cylinder keyway. The appearance of the keyway's broaching is a bit deceptive. On a typical knob lock with a pin tumbler cylinder, the keyway would usually be vertical. Since standard cylinders end up being turned sideways for lever handle locks, the typical pin tumbler lever handle lock will have a horizontal keyway. Notice that the keyway on the MUL-T-LOCK lever handle lockset is vertical. The orientation of the pin chambers in the lock cylinder is actually identical to standard pin tumbler cylinders, however, the dimple cuts on the key are cut on the wide flat surface of the key. It is how the keys are cut that

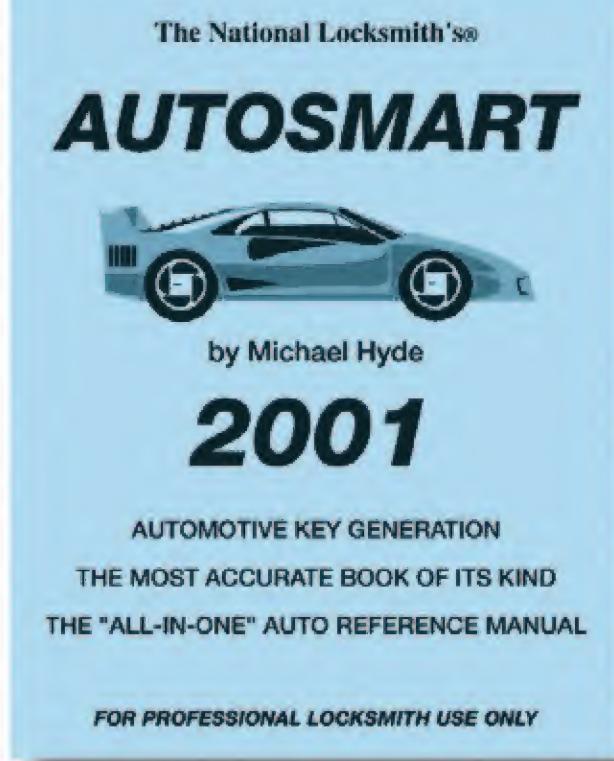


3. A close-up view of a key, ID card and cylinder keyway.



4. The key is inserted and rotated nearly 90 degrees in preparation to remove the lever handle.

## AutoSmart



A MUST for every locksmith!

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causes that perception.

To remove the MUL-T-LOCK cylinder, you will operate much the same as with any other cylindrical lockset. In *photograph 4*, the key is inserted and rotated nearly 90 degrees to move the tailpiece out of the path of the lever handle retainer. With the tailpiece out of the way, a poke tool pushes in the retainer to release the lever handle.

*Photograph 5*, shows the handle ready to be removed. With the handle off, in *photograph 6*, the lock cylinder is now accessible.

As I mentioned earlier for the lever handle, the keyway for the MUL-T-LOCK knob is also opposite what is typical for a standard pin tumbler cylinder. *Photograph 7*, shows the keyway horizontal, where the keyway of a standard pin tumbler cylinder would be vertical. As with a lever handle lock, removing the knob would require inserting the key and rotating nearly 90 degrees and pushing in the retainer with a poke tool. The knob has been removed in *photograph 8*.

*Photograph 9*, shows the cylinders removed from both cylindrical locksets. The lever handle and its cylinder are on the left and the knob and its cylinder is on the right. Notice the orientation of the tailpieces. The cylinder for the lever has a vertical tailpiece, and the cylinder for the knob has a horizontal tailpiece. In relation to the lock mechanism, the tailpieces are oriented exactly the same.



5. The handle ready to be removed.



6. The lock cylinder is now accessible.

#### Lock Repair Manual



## Lock Repair Manual

Here, under one cover you have a tremendous amount of lock servicing information. Next time you run into a problem chances are you'll find the answer in the Lock Repair Manual.

[CLICK HERE TO LEARN MORE](#)

#LRM - 1

7. The keyway on the knoblock is horizontal, where the keyway of a standard pin tumbler cylinder would be vertical.



8. To remove the knob, insert the key and rotate nearly 90 degrees, pushing in the retainer with a poke tool.

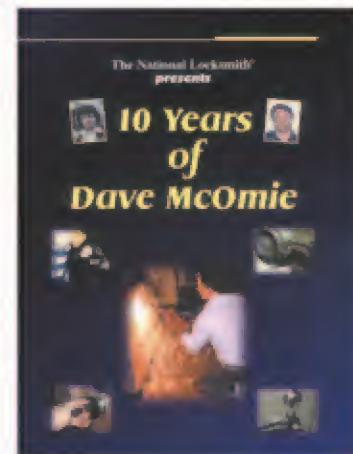
Because the knob cylinder remains in that same position (when installed), the tailpiece remains horizontal. Since the cylinder for the lever handle has to be turned 90 degrees for installation, the vertical tailpiece actually becomes horizontal when installed.

A close up view, in photograph 10, shows that the knob and lever

handle lock cylinders are essentially the same. A retainer pin can be seen in each within the cylinder end cap. Two cutouts (in the tailpiece part) allow you to push in the retainer pin, and rotate the tailpiece to a different fixed position. You can go from vertical to horizontal or vice versa.

Photograph 11, shows an

## 10 Years of Dave McOmie



Every single National Locksmith article by Dave McOmie from August 1986 through August 1996 under one cover!

[CLICK HERE TO LEARN MORE](#)



#DM - 10



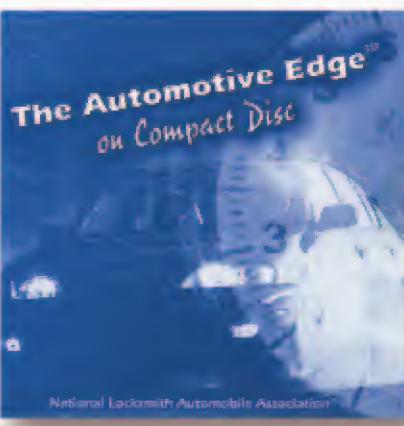
9. The cylinders removed from both the lever and knob cylindrical locksets.



10. The knob and lever handle lock cylinders are essentially the same.



11. An interesting color coding process for MUL-T-LOCK keys.



# AutoEdge

This CD contains over 750 pages of automotive locksmith service.

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#AE - CD



# BUSINESS BRIEFS

## **Maziuk & Co. Wire and Cable Installation Made Easy**

Maziuk & Company's Electronic Security Products Division announces the availability of two product lines intended to ease the burden of running wire inside a building. A complete catalog of Labor Saving Devices offers unique tools that are invaluable for speeding up the process of getting wire through walls and over false ceilings.

Maziuk also stocks the Nice-Duo line of wire molding for situations where wire must be run outside a wall, yet still be protected and appear aesthetically pleasing.

For more information contact the Electronic Security Products Division of Maziuk & Co., Inc., 1251 W. Genesee St., Syracuse, NY 13204 (800)-777-5945. Circle 436 on Rapid Reply.

## **Medeco® Names Account Executive for Southwest U.S.**

David Kitchen has been named account executive for

Medeco High Security Locks responsible for the company's sales and marketing efforts in the southwest United States, including

Arizona, New Mexico, western Texas, and southern Nevada.

For additional information about Medeco High Security Locks, call 1-888-839-3157 or consult our website at [www.medeco.com](http://www.medeco.com). Medeco is an ASSA ABLOY group company.

## **Strattec Names Vice President, Engineering**

Strattec Security Corporation is pleased to

announce the election of Donald J. Harrod to the position of vice president, engineering.

Mr. Harrod has responsibility for overall product and manufacturing engineering through Strattec's customer-focused product business teams, as well as responsibility for the company's Advance Development Group. He is an officer of the corporation, and reports directly to Harry Stratton, president and CEO.

## **Mas-Hamilton Adds New Department**

Mas-Hamilton has established a Customer Service Information Center to improve its dedication and loyalty to their locksmith partners.

Mas-Hamilton has made a commitment to pay all approved locksmith invoices, with parts returned within 14 days of receipt of the invoice. If you need assistance with the implementation of this plan, please contact Bill Nevitt, vice president of customer service or Debbie Baber, customer service manager.

If you have any questions call: 800-950-4744 ext. 353.

## **DynaLock Corp. Consolidates U.S. Reps**

DynaLock Corporation has appointed Stegweit & Company Inc. as sales representative for contract hardware, locksmith and access/security accounts in Ontario, Canada; The Berrett Group Inc. as the sales representatives for locksmith and Access/Security accounts in eastern Ohio, western Pennsylvania and southern Kentucky; Gover and Associates, Inc. as the



exclusive DynaLock representative in Florida, Georgia, Alabama, Tennessee, Mississippi, North Carolina, and South Carolina; and FJD Associates, Inc. represents Maine, Vermont, New Hampshire, Massachusetts, Rhode Island and Connecticut.

## **DORMA Appointments**

DORMA Architectural Hardware has appointed: Kim McDonnell - marketing communications coordinator;



James L. McNamee joins the sales department;



Jerry Whitcomb - product manager and



Lynn Eisenhauer - architectural projects manager.



## **IDN Hardware Sales, Inc.**

IDN Hardware Sales, Inc. has named Jerome Andrews as its Ohio Sales and Technical Services Representative.

Jerome has been involved in the lock and security industry for over 20 years, most recently as manager of marketing and technical services of Kaba High Security. Jerome is a recognized expert in keying systems, technical writer,

Certified ACE instructor, and Director-At-Large of the ALOA Board.

## **Michael P. Petersen Joins Detex**

Michael P. Petersen has joined the Detex International as International Sales Manager.



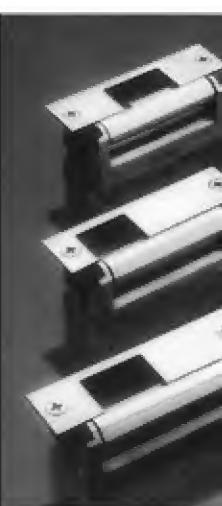
## **Richardson Electronics Acquires Adler Video Systems**

The Richardson Electronics Security Systems strategic business unit has acquired Adler Video Systems, a southern California based stocking distributor of CCTV systems.

## **JLM Stocking 9100 Locknetics Strikes**

JLM Wholesale is stocking the new 9100 and CM9100 Series electric strikes by Locknetics. The 9100 Series provides many of the features of the 9000 Series and adds

innovative upgrades, horizontal adjustment-3/16", cast stainless steel housing and keeper, built in spike suppresser, modular monitoring switches, UL listed for burglary and fire and ANSI Grade 1.



Call: 800-522-2940 for complete details. Circle 437 on Rapid Reply. **TNL**

*Clark Security Products'*

# SecureRite

*One-Stop-Shop*



*In January of this year, Clark Security Products launched a powerful new program for locksmith dealers, designed to funnel consumer business away from the home centers and back to the locksmith industry.*

**I**t's called "SecureRite" Authorized Dealer Network. It can be found on the World Wide Web at: [www.securerite.com](http://www.securerite.com). (See illustration 1.)

SecureRite, offered exclusively by Clark Security Products to its dealer customers nationwide, combines traditional marketing efforts with the innovative and exciting technology of the World Wide Web. Simply put, Clark Security Products has taken the traditional distribution model and built a new technologically based Internet business on top of it. The SecureRite authorized dealer program is an easy and effective way for independent



**Are you concerned about home security and safety?**

**If you are, then come on in!!!**

**1. The SecureRite home page on the World Wide Web.**

locksmith dealers to grow their business through access to the consumer market using the power of the World Wide Web.

Why the Internet? As many of you have been reading, hearing, and learning, the world of Internet e-commerce continues to flourish and

grow beyond financial institution predictions. In 1998, sales over the Internet reached into the billions and are expected to double each year into the future. As consumer buying power shifts directly into the consumer's hands, Clark Security Products has found a way for its distribution



**SecureRite**

Welcome to  
SecureRite.com



[SECURITY AT-A-GLANCE](#)
[SECURITY STEP-BY-STEP](#)
[PRODUCTS](#)
[ORDER STATUS](#)
[ABOUT](#)
[SEARCH](#)



**Introduction**  
**Doors:**  
 Front Door  
 Back Door  
 Sliding Door  
 Garage Door  
**Windows:**  
 Casement/Sliding  
 Double Hung  
 Louvered  
 Awning/Slider  
 Shutter  
 Landscaping  
 Lighting  
 Exterior  
 Interior  
 Swimming Pool  
 Auto  
 Home Alarm  
 Home Safety  
 SWS  
 Fire Extinguisher  
 Smoke Detector  
 CO Detector

**Windows**

- Windows are the #1 point of entry for residential burglaries!
- 30.9% of burglaries occur through first floor windows.
- 6.0% of burglaries occur through the upper-floor windows.

Secure windows by installing a lock that will prevent an intruder from punching a small hole in the glass and reaching in to unlock and open your window. Burglars are generally very shy about drawing attention to themselves, so they prefer not to break out an entire window to gain entry. If installed with security and safety in mind, window locks, landscaping and security lighting can make even the most remote windows unattractive to an intruder.

**Keyed Locks** - The most effective for added security; however, be very cautious when installing these locks in bedrooms where children or the elderly sleep. "All added security should also keep safety in mind!"\*

**Window Bars** - Due to safety concerns and appearance, these are suggested only for homes in higher crime areas. New types of bars have quick-release handles that allow you to exit the window in case of emergency. Security bars allow you to keep your windows open for ventilation without the fear of an intruder gaining access through the flimsy screen material. Once again, be very careful if you decide to install this type of security. Please consider the potential safety issues of having someone trapped inside in an emergency. Check local and fire safety laws first (contact your local fire department).

**Safety Concern:**  
 No device (screws, nails, blocks, security bars, etc.) should ever be permanently installed on windows that are considered emergency exits.

*\*Have only qualified installers fit your windows with these devices!\*\**

**2. The web site teaches visitors about home safety and protection, providing free safety tips and product suggestions.**

business and its dealers to profit from this growing revenue opportunity. The www.securerite.com web page relies upon a "virtual dealer network" through which sales are billed, products shipped, and installations fulfilled.

The SecureRite Authorized Dealer network is a cooperative pull-through marketing program between Clark Security Products and thousands of locksmith dealers nationwide. Not only is the program designed to take advantage of Internet sales, but it also focused on drawing consumers away from the home security center and back to the locksmith industry. In today's world of "big" business, stores like Home Depot, Wal-Mart, Builders Square, etc. have lured consumers to their warehouse size stores by advertising wide selections along with rock bottom prices. Even more telling is the fact that one Home Depot opens every three days in this country. SecureRite and www.securerite.com are poised and prepared to take the home center business head on and bring it back to the locksmiths nationwide.

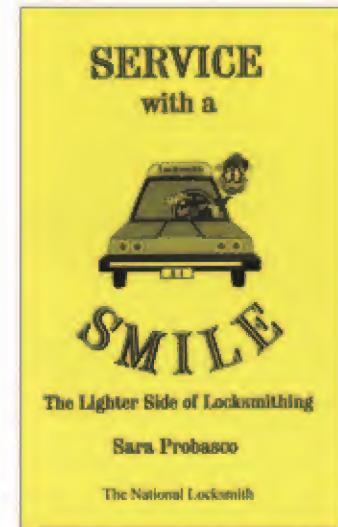
SecureRite offers consumers a "one stop shop" security center built around an on-line business and

supported by a dealer network. The web site teaches visitors about home safety and protection, providing free safety tips and product suggestions. (See illustration 2.) All products sold over the Internet are priced competitively to Home Depot prices, and the web site also includes products not sold by large do-it-yourself centers. There are 15 categories covering everything a homeowner needs to assure his home is safe and secure. (See illustration 3.)

**Categories include:**

- Alarms:  
 Wireless home alarms
- Doors:  
 Door Bar  
 Door Locks  
 Door Viewer (Peek Hole)
- Gate Latch:  
 Garage Door Lock  
 Sliding Glass Door Lock
- Keys & Accessories:  
 Key Holders
- Lighting:  
 Motion Sensor Lighting  
 Interior Timers
- Padlocks
- Safes:  
 Fire/Burglary Safes  
 Wall Safes  
 Gun Safes  
 Gun Trigger Locks  
 Gun Vaults
- Vehicle Locks:  
 Bike Lock  
 Motorcycle Lock  
 Steering Wheel Lock
- Windows:  
 Window Locks
- Child Safety:  
 Pool Alarm
- Home Safety:  
 Carbon Monoxide  
 Detectors  
 Fire Extinguishers  
 Smoke Detectors

# Service with a Smile



To tickle the funnybone of anyone in a service oriented business.

**CLICK HERE TO LEARN MORE**



#SWS

Welcome to SecureRite, the new name in Home Security and Safety.  
 First timers, try our [Welcome](#) page, otherwise click on a menu item or one of our areas of security/safety below.

**3. There are several categories covering everything a homeowner needs to assure his home is safe and secure.**

In essence, SecureRite offers a home security convenience that other competitors can not, and it operates by directing all sales through its dealer network.

SecureRite is the ultimate business development program for locksmiths, especially as the Internet plays an increasingly vital and powerful role in reaching consumers. SecureRite will provide the dealer with access to the consumer and small business market via the Internet without the cost of creating, maintaining, and promoting the dealer's own web site. To become an authorized SecureRite dealer, a locksmith must:

- Have a full-time locksmithing business.
- Be a member of a local or national locksmith association.
- Register a domain name with InterNIC, the World Wide Web address agency, at [www.internic.net](http://www.internic.net) (\$70 fee for 2-year registration).
- Set up a new merchant account for credit card processing over the Internet (set-up charge for linking account with on-line credit card processor).
- Sign an authorized dealer agreement.

commissions or fees. Clark Security Products charges nothing to participate in any part of this pull-through marketing campaign and network. To reiterate, the only costs required for participation are those associated with setting up an Internet page and an Internet credit card account. All locksmiths own their own web site, and in the event that they no longer want to be SecureRite dealers, they can use their own domain name to establish their independent presence on the web.

In addition to the "virtual" business world, SecureRite will provide customers with professional merchandising for their showroom (if applicable), proprietary products and innovative merchandising services that will bring customers to the virtual or shop door. As a division of Clark Security Products, SecureRite will advertise to consumers and promote home security and personal safety. Its national direct marketing efforts will bring consumers, homeowners, and small business owners, (among other potential dealer customers), to the [securerite.com](http://www.securerite.com) web site. Not only will Clark Security Products promote [www.securerite.com](http://www.securerite.com) through traditional media, but it will also build traffic to the site using Internet advertising and marketing efforts,

Welcome to SecureRite.com

**I'll Take Door #1, Monty**

Do you have a deadbolt lock on all exterior doors?

Yes  
 No

**Score** **Progress**

12

**Statistic:**  
 Doors are the second most common entry point for intruders

**Billy Bad Guy says:**  
 We usually kick in doors to gain entry. Knob set locks offer minimal to moderate resistance. Deadbolt throws extended into the door frame provide added resistance.

**4. The [securerite.com](http://www.securerite.com) web site itself offers a home security survey, which quizzes site visitors on their home security status.**



Welcome to  
SecureRite.com



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### Order Status

You will be able to start ordering products from our website before the end of January 1999. Once you place an order and get a confirmation number, you will be able to review your order from this page. We will provide you with the UPS tracking number so you can tell where your package has been.

Thank you for your patience while we complete the final details for our ordering process.

SecureRite Web Team

**5. Credit card sale will be deposited directly into the dealer's merchant account.**

including banner advertisements on most major Internet search engines.

The [securerite.com](http://www.securerite.com) web site itself offers a home security survey that quizzes site visitors on their home security status (*see illustration 4*) tips for improved home security, security products suggestions, and referrals for product installation by an authorized SecureRite dealer. Once the customer has decided to purchase products or to arrange for installation, the web site will prompt the consumer to select his or her authorized SecureRite dealer or to choose from a list of dealers situated near the customer's zip code. Once a dealer has been selected, the customer will provide his or her credit information to process the transaction, and the credit card sale will be deposited directly into the dealer's merchant account. (*See illustration 5.*) The SecureRite dealer will then authorize Clark Security Products to ship the product to the customer on behalf of the dealer. SecureRite will not process credit card transactions over the Internet or anywhere else, since all sales will be processed through a locksmith.

For over 45 years, Clark Security Products has focused on delivering excellent customer service and providing exceptional fill rates for dealer locksmiths. Clark Security Products has pioneered marketing and business growth programs for its dealer customers, including the Service Excellence Guarantee, ClarkClub, and the Clark Management Conference seminars. Changes in security technology have promoted Clark Security Products to become the leader in education for locksmiths in the area of electronic

and access control products and installation. All of these programs have been designed with the expectation that Clark Security Products will only be successful if they help their customers successfully grow their business too.

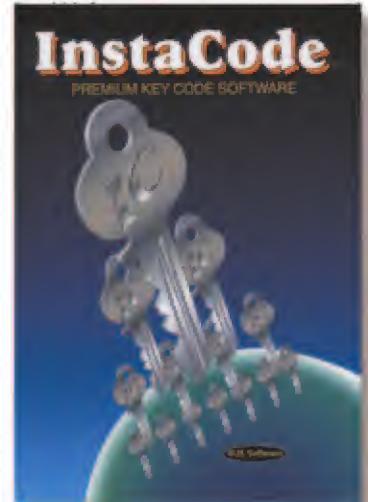
All Clark Security Products sales representatives are available to answer your questions and provide you with information about an upcoming SecureRite seminar in your area. Clark Security Products will sponsor SecureRite.com demonstrations and SecureRite Showroom Programs set up at each Clark Security Products location. *If you would like to have more information or if you have questions, please contact SecureRite at 800-241-3930 or call the Branch Manager at your local Clark Security Products location.*

Clark Security Products and SecureRite are committed to the continued growth and success of the thousands of family-owned locksmith customers that Clark Security Products has served for over 45 years. SecureRite is the best program Clark Security Products has created that will help you, the locksmith dealer, compete successfully in the high-tech environment of the coming years. **TNL**

*Circle #270 on the Rapid Reply Card.*



# InstaCode



Your total code  
and code machine  
management program.

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#IC - 2001

# Road Rally

A showcase of locksmith service vehicles.

If you think your vehicle has what it takes to be featured here, send photographs and descriptions to:  
**The National Locksmith, Road Rally, 1533 Burgundy Parkway, Streamwood, Illinois 60107-1861.**



**Owner:** William De La O,  
Miami, FL

**Model:** 1998 Chevrolet  
1500 Van



**Owner:** Dennis R. Davidson,  
Garden City, KS

**Model:** 1988 Chevrolet  
Beauville 1 Ton Van



Taking  
Industry Products  
for a

# TEST DRIVE!

I can remember the days when almost any type of lock installation required freehand drilling the door to accomplish the task. It was a time when few drill guides were available and a clean installation required a steady hand, a good eye and you prayed that the door would not split. Often the result was less than desirable. Today there is a drill guide (drill guide, drill jig, drill template, whichever you prefer) for almost any application, leaving little to the imagination...which is a good thing.

Why anyone would want to drill even a pilot hole without using a drill guide is beyond me. It eliminates the laborious task of measuring hole locations, mark you measurements and then hoping you drill straight. You also don't have to worry about a door splintering because the backplate on the drill guide eliminates the worry. Using a drill guide in my opinion is the only way to go.

When it comes to drill guides and supplies, Major Manufacturing, Inc. is well known for its products and offers all you will ever need. Major manufactures a door hardware installation drill guide for: Alarm Lock; Arrow; ASSA; Best; Cal-Royal; Corbin; LSDA; Marks; Medeco; Falcon; Omnilock; PDQ; Russwin; S. Parker; Sargent; Schlage; Simplex; Taco; U.S. Lock; and Yale, just to name a few. That doesn't include the number of electric strike drill guides and drilling supplies it offers.

This month we take a look at the HIT-102 designed for installing the Simplex 1000 series and Alarm Lock Trilogy T2. The HIT-102 will fit doors from 1-3/8" to 2" thick and has a standard backset of 2-3/4". The drill

## The HIT 102 by Major Manufacturing, Inc.

guide permits drilling of all through bolt holes, including lever holes, anchor tabs and wire run for the Trilogy T2. It also provides a guide for the combination change hole on the Simplex lock.

### CONSTRUCTION:

All Major drill guides are machined from 1/2" thick 6061 aluminum with hardened steel drill guides. All the drill guides Major manufactures are of very heavy construction. Each tool is anodized a specific color for quick reference. The HIT-10 is Green. This is a nice feature when you have a tool box full of drill guides. Most of the drill guides can also be used to retrofit more than one manufacturer's lock.

### INSTALLATION:

The HIT-102 is quickly secured to the door with a single allen bolt that clamps through an existing crossbore hole. If it is a new installation, a crossbore hole will need to be drilled to install the HIT-102. Simply remove the allen bolt and back plate of the guide. Place the HIT-102 on the door with aligning washers in the 2-1/8" crossbore with the writing on the front plate in the upright position. Replace the back plate and tighten allen bolt until snug. Your door is now ready to be drilled for either a



Simplex  
1000 series  
on Alarm Lock  
Trilogy.

The included instructions indicate which drill guide holes need to be drilled for which lock. After all pilot holes are drilled, remove drill guide from door and re-drill holes to their proper size as noted in instructions. The door is now prepped and ready for lock installation.

### CONCLUSION:

The Major HIT-102 is without a doubt a well-constructed product. It is precise and foolproof to use. It is a bit on the expensive side, however, because of its construction and with proper care and maintenance (which is very little) this product will last a lifetime.

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### IN SUMMARY:

**PRICE:** The retail price for the HIT-102 is \$228.50.

**DESCRIPTION:** The HIT-102 is a drill guide used for installing Simplex 1000 series or Alarm Lock Trilogy T2 locks.

**COMMENTS:** Is easy to use, requires a crossbore hole to install and beats freehand drilling.

**TEST DRIVE RESULTS:** A well-constructed product that is precise and will last a lifetime.